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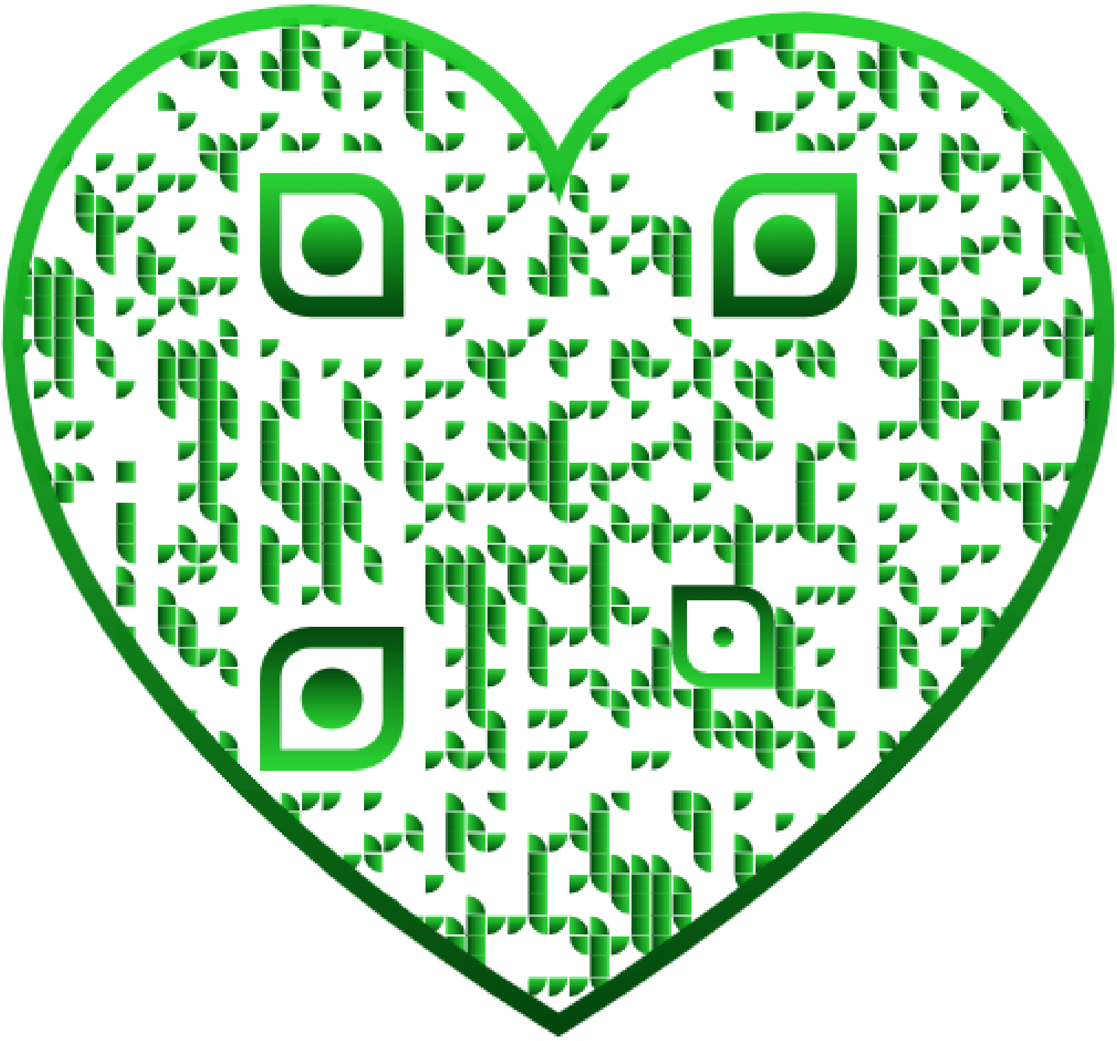

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Welcome

Our annual Self Build Special Edition is an essential bible for anyone planning or in the throes of their dream home project. Our mantra is to be the most focused, trusted resource for self builders. So, packed as it is with practical advice, inspirational projects, cost insights and product guidance, this weighty tome is a microcosm of what we're all about here at Build It.

That mission was also the spark behind our decision to become the first (and still only) magazine to build its own home. Build It's Self Build Education House opened its doors to the public in 2020. After five fantastic years as a must-visit hub for anyone looking to expand their knowledge before specifying their own projects, it's now time for the Build It House to close its doors and become a private home.

Having project managed the build myself, tracking the journey in the mag and online (www.self-build.co.uk/ourhouse), it's been so fulfilling to know that self builders have gained real inspiration and based their own decisions on what they've seen at the house. Saying farewell brings mixed feelings, but I'll be glad to see the Build It House being used by a family who love living there! Besides, our forward-thinking project is still very relevant to today's self builders. Turn to page 67 for a look back at the build, the decisions we made and what we might do differently now!

Chris

CHRIS BATESMITH, CONTENT DIRECTOR

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Build It's
Self Build Education House

MEET THE TEAM

SANDER TEL is Build It's digital features editor. Alongside putting together lots of inspiring content at self-build.co.uk, he regularly contributes in-depth articles for the magazine.

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COVER IMAGE: THE BUILD IT EDUCATION HOUSE; SEE PAGE 67 FOR AN IN-DEPTH REVIEW OF OUR REAL-LIFE PROJECT

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2025-26 Edition

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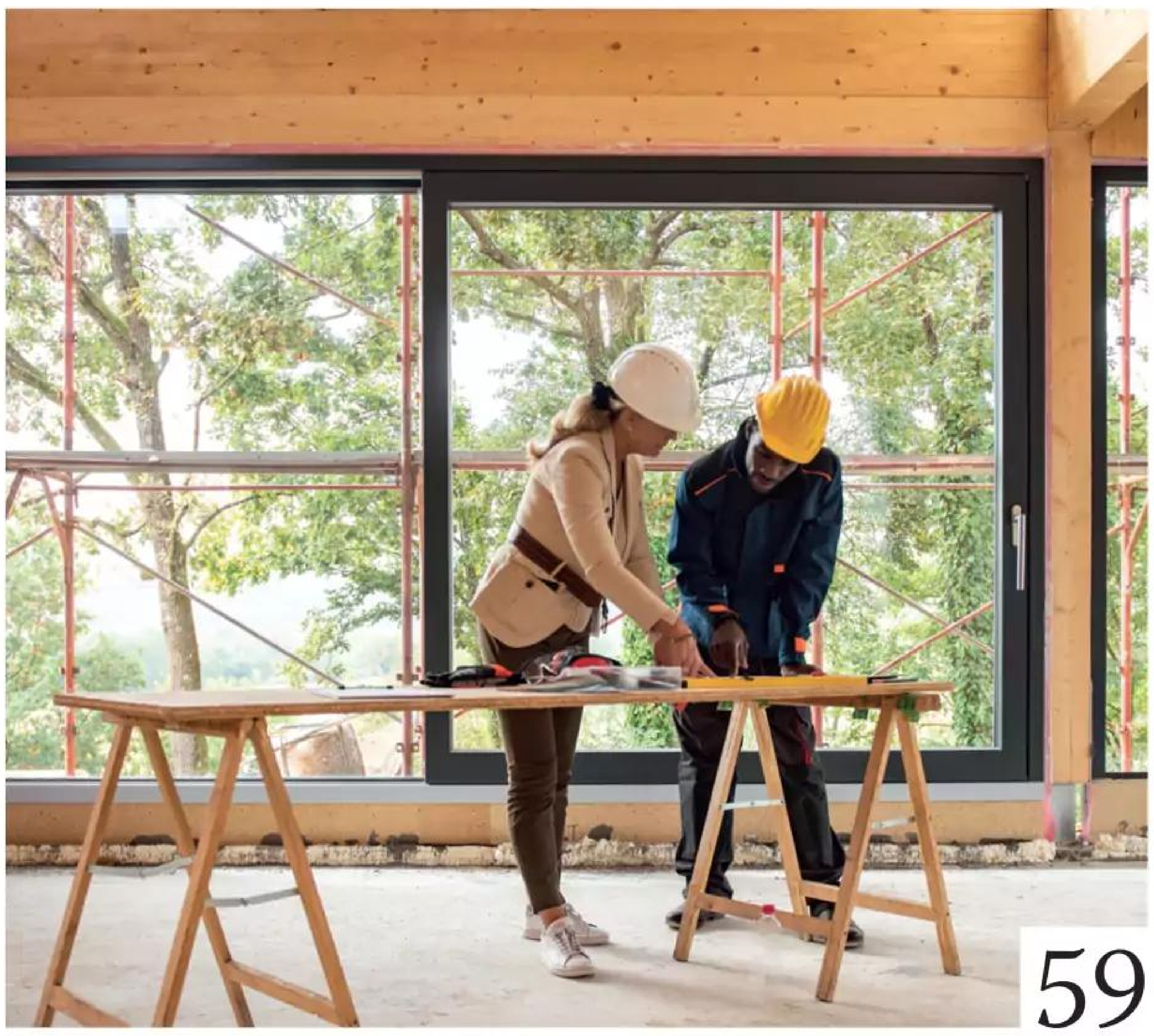
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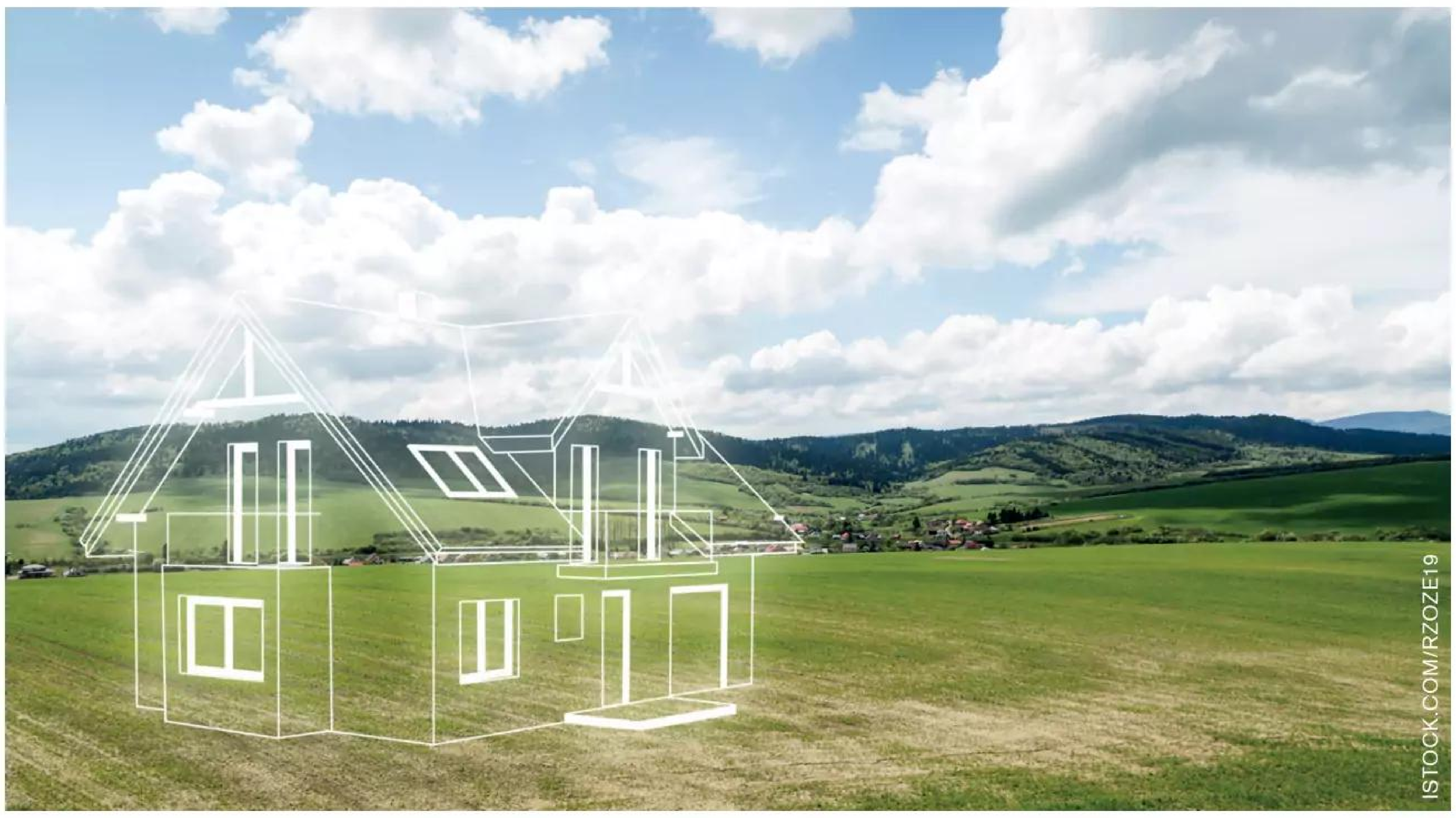
Self build news

We take a look at the key changes in self building, to help you plan your project



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Councils miss targets for permissioned plots

LivedIn and The National Custom and Self Build Association (NaCSBA) have recorded a 35,451 deficit between plots on which councils have granted permission for self-commissioned homes, versus the number of people signed up to Right to Build registers within the UK. Their findings have shown that only 59% of demand has been met in regards to permissioned plots, with just 37% of local authorities hitting targets.

Approaching 10 years since the Self Build and Custom Housebuilding Act was passed, these figures show the growing need for government intervention to encourage councils to meet their mandated targets. Without action, opportunities for individuals and families to build affordable, bespoke homes risk being missed, stalling progress on housing diversification and community-driven development.

Government offers support for self and custom build industry

Housing minister Matthew Pennycook has written to the Chair of Homes England to set out the new Labour government's long-term and ambitious housing strategy. Pennycook expressed seven immediate priorities in his note, with the fifth stating: "I expect the Agency to support the reform and diversification of the housing market." Under this point, the minister specifically references that Homes England should "support the self and custom build and community-led housing sectors". This is the strongest signal yet that Labour intends to continue the previous government's consistent backing for diversification of the housebuilding market through the self and custom build industry.

This growing support for self building reflects an increasing demand for more housing in the UK. A survey conducted by Campaign for Individual Homes showed that 90% of the UK electorate believe that more housing is urgently required, with over two thirds saying it's needed within five miles of their own homes. In addition, 68% of those surveyed would prefer for this to be achieved through small, community-focused developments of fewer than 10 homes – indicating that the majority of people would prefer high-quality housing that enables local communities to develop more organically. These preferences underline a clear shift in public opinion towards sustainable, community-first developments, where individual needs and characterful designs are prioritised over mass produced, large-scale, impersonal construction projects.

TIMBER BUILD SYSTEMS

The rise in timber frame construction

SIMON ORRELLS from Frame Technologies explores why this build method is seeing an increase in popularity

Timber frame construction is booming in the UK as more individuals opt to prioritise sustainable, energy-efficient homes. As always, while the mainstream housebuilders strive to achieve zero carbon, it will be the self builders driving the increase in sustainable construction and really showing them how it's done.

Timber construction offers flexibility and customisation, making it ideal for self builders who want to create their own unique home. Modern timber frame solutions support a range of cladding options, which allow designs to be adapted to various plot types, budgets and aesthetic goals. The flexibility of timber frame allows self builders to design precisely to their specifications.

Another significant benefit is the speed and predictability of timber construction. Prefabricated offsite, timber frames are manufactured in controlled environments, leading to reduced on site build times and minimised weather delays. This can save self builders valuable time and money, while ensuring quality control and reducing material waste.

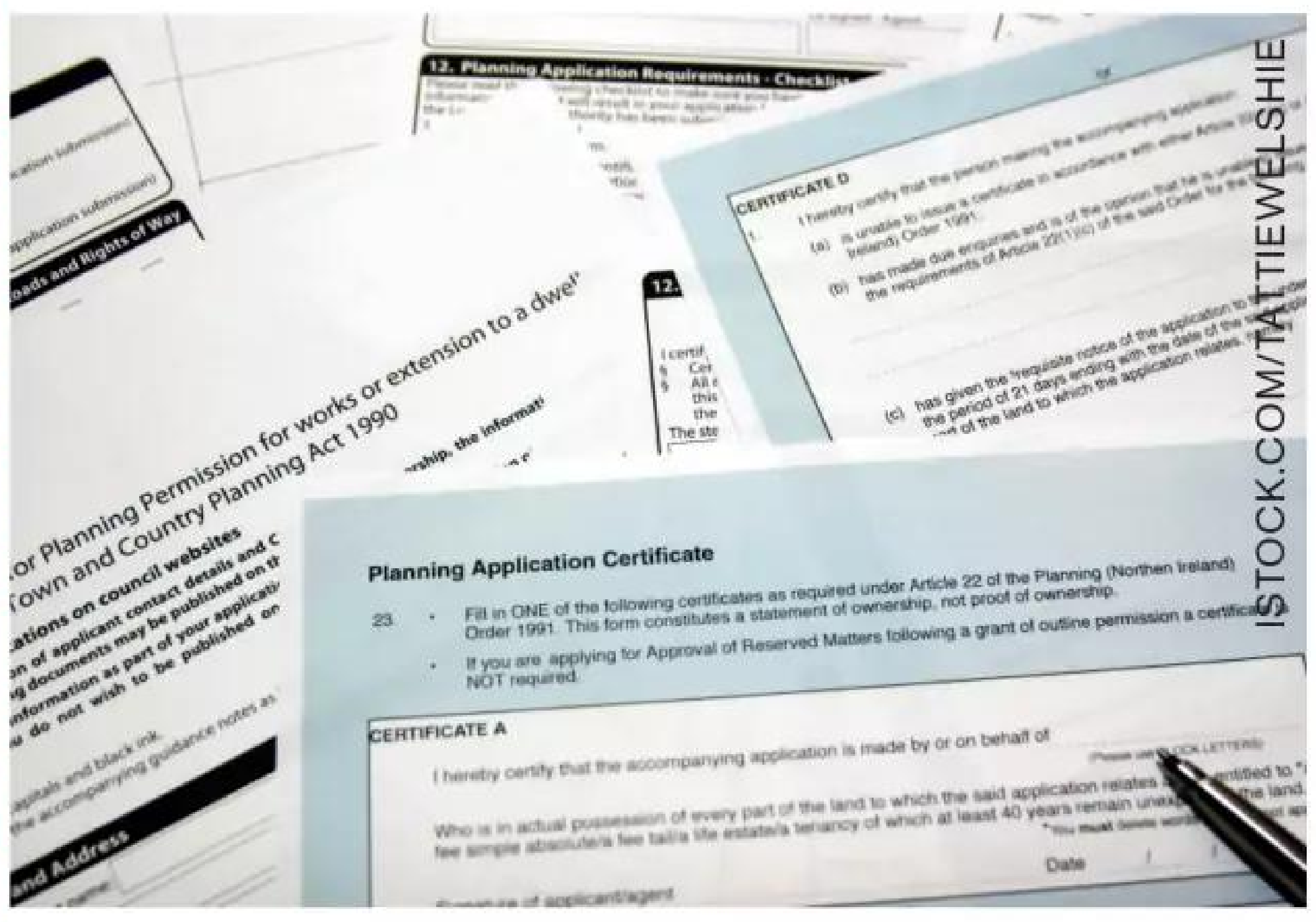
The Structural Timber Association (STA) supports the growth of timber frame construction by providing resources, quality standards, and access to expert partners. Its STA Assure certification guarantees that members have undergone quality audits and adhere to best practices. Choosing a reliable partner is the first step towards a successful project and no matter which accredited company you pick, you'll be in safe hands.

Members can also offer valuable advice on design, Building Regulations and planning challenges, ensuring the project meets all standards. This value-engineered approach provides an all-encompassing solution that combines environmental responsibility with quality and cost-efficiency, positioning timber frame as a leading choice in modern homebuilding.

Record increase in homes with renewable systems

According to data from the Microgeneration Certification Scheme (MCS) Data Dashboard, there were more than 260,000 certified installations of heat pumps, solar panels and battery storage in 2024 – a 7% increase compared to the previous year. Solar PV continues to be the most popular renewable technology with over 180,000 installations recorded last year, while a record-breaking 20,000 battery storage systems were installed across the UK. While households are becoming much more conscious of their homes' eco credentials, The Boiler Upgrade Scheme (BUS) and Home Energy Scotland Grant and Loan has also played a significant role in accelerating growth by making heat pumps more accessible and affordable for homeowners. Minister for Energy Consumers, Miatta Fahnbulleh, said "by almost doubling the budget for our BUS in the next financial year, we hope that records for renewable installations will continue to be overtaken."

This solar array was manufactured by Solarwatt (solarwatt.com). Eco Energy Environment (eelimited.com) both supplied and installed the setup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Labour pushes Local Plans to combat planning delays

Labour has announced they will strive to roll out Local Plans for councils as part of its efforts to fast-track planning applications. Alongside the national planning policy framework (NPPF) Local Plans can become a key tool to deem if a project complies with regulations. This would allow local planning officers the ability to approve applications, without the need for consultation with council committees. Labour has said that such a restructuring to planning process will alleviate strains on local departments and speed up decisions. Conservative critics of the scheme argue that the policy undermines collaboration with local people, though this rather ignores the fact that communities are consulted on Local Plans in the first place.

UNDERSTANDING YOUR SOIL PROFILE

The importance of soil surveys

OLIVER SCOTT

director at Karn Geoservices explores why knowing your soil profile is vital for self builders

A soil survey or ground investigation is undertaken to determine the key chemical and engineering properties of the underlying soil profile. The study typically consists of two main parts. Firstly, a geotechnical examination will be carried out to determine the plot's suitability for construction, including soil classification and various strength tests to evaluate bearing capacity, settlement and stability. Secondly, a geo-environmental assessment will be conducted. This stage identifies the specific soil and groundwater conditions to identify any contamination risks and environmental impacts.

Most projects can benefit from a soil survey, to cut costs which may crop up when the first spade hits the ground. Our work can be a condition of planning where contamination could be an issue, or it can be required to give designers the assurance their creations are suitable.

The survey will provide parameters for engineers, to enable them to create substructures which are appropriate for the ground condition. The investigation can be used to determine the soil's strength and stability, groundwater conditions, geological hazards such as sinkholes and landslides, and gas risks.

Early engagement with a consultant is key to identify potential issues and getting them rectified. Desk-based assessments can be turned around in approx one to three weeks, but intrusive ground investigations can take four to six weeks from instruction to issuing the final report.

Costs are proportionate to the scale of development and the level of complexity involved. Widespread contaminated areas or abundant historic mine networks, for example, will make the investigation much dearer. Typically, reports start from around £2,500 for a single plot build.

There are lots of excellent ground investigation companies in the UK, but as with any part of your project, make sure you do your due diligence for peace of mind that you're getting a comprehensive survey. To check if your consultants have suitable experience, insurance and a proven track record, look for companies with Chartered Engineers (CEng), Chartered Environmentalists (CEnv) and Chartered Geologists (CGeol).

An excellent consultant will be able to identify key risks on the site from the underlying geology and their own experience. This will then allow them to design a suitable investigation that provides sufficient coverage and extrapolates the relevant data to meet the objectives and minimise the risk of any unforeseen ground conditions. By comprehensively understanding the soil conditions that are present on the site, the consultant will be able to highlight and help overcome any potential issues prior to starting the construction work.

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GOVERNMENT HOUSING DELIVERY

Self Commissioned Homes Unit

ANGIE DORAN, head of the SCH at Homes England takes a look how this government division is supporting self builders

Homes England is the government's housing and regeneration agency. Our main aim is to accelerate housing delivery and regeneration across England, in line with our belief that affordable, quality homes in well-designed places are key to improving people's lives.

The Self Commissioned Homes Unit (SCH) was set up on the back of The Bacon Review, which explored how self and custom build could be scaled up in the UK. It concluded that the government should create a new custom and self build housing delivery division within Homes England, to enable the creation of serviced building plots on small and large sites, and support the delivery of custom and self build housing at scale, across the country. After reviewing the state of the housing sector, the government added that they felt the unit should look at all forms of custom build and community-led housing.

To begin with, we listened to those working in the industry, to understand how we could best support them. We also ensured that colleagues within Homes England, specifically in funding and delivery departments, understood the benefits of self-commissioned bespoke homes and how we can work together. In addition, we established a collaborative relationship with the Ministry of Housing, Communities and Local Government. This communication with officials has been really impactful, allowing us to provide significant delivery advice on policy development.

As it was unclear how many self-commissioned units had been enabled by Homes England over the last few years, we carried out some research to get a baseline that we could measure progress against. We have worked with the Local Government Capacity Centre to create educational sessions – two of which featured speakers from NaCSBA's Right to Build Task Force.

Each local authority has different challenges and also varying budgets. Therefore, we carried out a regional think tank pilot project where local stakeholders – such as self/custom build enablers, community-led housing groups, small builders, landowners and planners – worked together to suggest solutions for delivery.

Initial direction from the government has been positive. A letter from government to the Chair of Homes England stated that the Agency is expected to aid in the reform and diversification of the housing market, supporting the self build, custom build, and community-led housing sectors.

As well as continuing to support SCH in any way that we can, we have several exciting new projects on the horizon. The unit will look to work with colleagues to consider how new funds could be designed to help self-commissioned home delivery. Furthermore, we have the opportunity to support SCH on our own larger sites, many of which have percentage policies for self and custom builds. Finally, given the tremendous success of the regional think tanks pilot, we are hoping to expand these to other areas of the country.

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Woodburners allowed in Future Homes Standard

The UK government has confirmed that woodburners will continue to be allowed in new homes, following a joint letter from the Stove Industry Association (SIA) and over 1,500 supporting businesses. Under the proposed Future Homes Standard, these stoves can serve as secondary heating sources within properties. The SIA has understandably welcomed the decision, highlighting the environmental benefits of modern stoves, including their low-carbon credentials and improved energy efficiency.

Designed to heat larger spaces with an impressive 8.0kW of heat, the Futura 8 by Stovax (stovax.com) is a large log burner offering a stylish look and spectacular flame visuals

Shortage of planners stalls housing progress

The Planning on Empty report surveyed 134 local planning authorities and found that 80% were operating below full capacity and unable to keep up with the demand for applications, causing a huge delay in final decisions. It is estimated that 2,200 planning officers are needed across England and Wales to address the severe lack of staff. Councils are facing high turnover rates and are having to rely on costly agency workers in an attempt to meet government housing targets.

As a way of combatting this delay, as of 1st April, planning application fees have increased sharply to reduce demand. Householder applications (which cover proposals to alter or extend a house) have risen from £258 to £528, for instance, while a discharge of conditions for a householder development has doubled to £86. Annual increases in line with inflation have also been introduced. The jury's out on whether the rise will bring improvements in resourcing and approval rates.

EV CONSIDERATIONS

Installing EV charging points

MANDY SIMPSON, brand director of Simpson & Partners explores the benefits and costs of EV installation

Despite some media reports, electric vehicle (EV) driving and ownership is growing. Since a change to Building Regs in 2022, new build homes in England are legally required to have electric car charging points if there is an associated parking space. For self builders, installation is a cost-effective project.

Typically, you won't need to obtain planning permission to set up a wall-mounted or freestanding model for a new build, as the works fall under permitted development (PD). However, if you live in a conservation area, a privately managed community, or a protected location, you should check with your local planning authory.

The average cost for EV installation is around £400, and the work should usually take no more than a day. It's imperative a qualified electrician assembles the equipment to ensure the functionality of the charger and, in some cases, maintain EV warranties.

You'll need to make sure that wall-mounted charging points allow easy access for your car. Freestanding pedestals offer greater flexibility and can reduce installation costs if you dig and backfill the cable trench yourself. Early communication with your chosen electrician can help to prioritise careful location planning and work out the best routes to hide cable runs.

The electrical connection required to charge your battery will depend on its size, charging speed, model, and if you have a single or three-phase supply. You can get an electrician to conduct a survey on your supply if you are unsure. Charging models tend to vary between 7.3kW and up to 22kW per hour, so check your car's requirements.

For a sustainable solution, opt for an EV charger that is compatible with solar PV panels. Any excess energy will be sent to the device to reduce the demand on the national grid. Some models will also allow you to adjust if electricity is to come from solar panels only, a mix of PV and grid, or grid only.

Homebuilding targets soar for local councils

Some local authorities have been ordered to increase house building by 400% to meet government objectives, according to figures from the BBC (bbc.co.uk). In total, 16 local authorities in England will need to have at least a five-fold increase to reach their new housing targets. Kensington and Chelsea have the most challenging target, needing to deliver 5,107 brand new homes annually for the next five years, despite only achieving an average of 236 net additional dwellings between 2023 and 2024. These targets translate to Labour's overall aim of creating approximately 300,000 homes a year – a level of house building which has not been witnessed in England since the 1970s. The UK's housing minister has taken a firm stance on implementing these new targets, indicating that the government will step in and take decisive action if councils are failing to meet these new goals.

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However, The Construction Industry Training board has estimated that the housing sector would likely need to attract approximately 50,300 additional skilled workers annually to meet the expected work levels such targets create.

Will new grey belt land designation unlock more self build plots?

Grey belt sites refer to land within the green belt that has either been previously developed or is of insufficient quality to warrant full green belt protection. The government sees these areas as an opportunity to deliver new housing while preserving green belt policy.

Research by LandTech and Stack Data estimates that grey belt land could accommodate up to 970,000 new homes– using less than 1.6% of the total green belt across the country. In a step forward, the concept was formally introduced into the National Planning Policy Framework (NPPF) in December 2024, opening the door for greater flexibility in land use.

However, the current emphasis has been on promoting grey belt land for larger-scale developments. That said, self builders should not lose hope. Paragraph 155 of the NPPF makes it clear that development on grey belt sites is not considered inappropriate where there is a unmet need for the type of housing proposed.

Given that a large number of councils are continuing to fall short in meeting their obligations to provide sufficient self build plots for the public – (as recorded on their registers) – grey belt land could represent a valuable opportunity within the planning arsenal.

Events you won't want to miss

BUILD IT LIVE SOUTH WEST

13TH-14TH SEP 2025

Visit us at the Westpoint Arena in Exeter to attend seminars, workshops, training taster sessions and get one-to-one advice from our experts on everything from finding land to project management.

OAKWRIGHTS OPEN DAY

19TH-20TH SEP 2025

One of the best ways of finding out about timber frame homes is going to visit one yourself. Oakwrights are opening the doors to their beautiful Warwickshire project to give you an opportunity to talk through your ideas with their team and the homeowners.

THE NATIONAL SELF BUILD & RENOVATION SHOW

10TH-11TH OCT 2025

Take a trip to the National Self Build & Renovation Centre in Swindon for this two-day event. With a whole host of exhibitors and experts on hand to share their advice, this is a great event if you are thinking about finding a plot and building a brand new home.

BUILD IT LIVE SOUTH EAST

21ST-22ND FEB 2026

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- Compare timber vs traditional builds
- Design smarter from the start
- Ask your supplier the right questions
- Understand mortgages and insurance for timber builds

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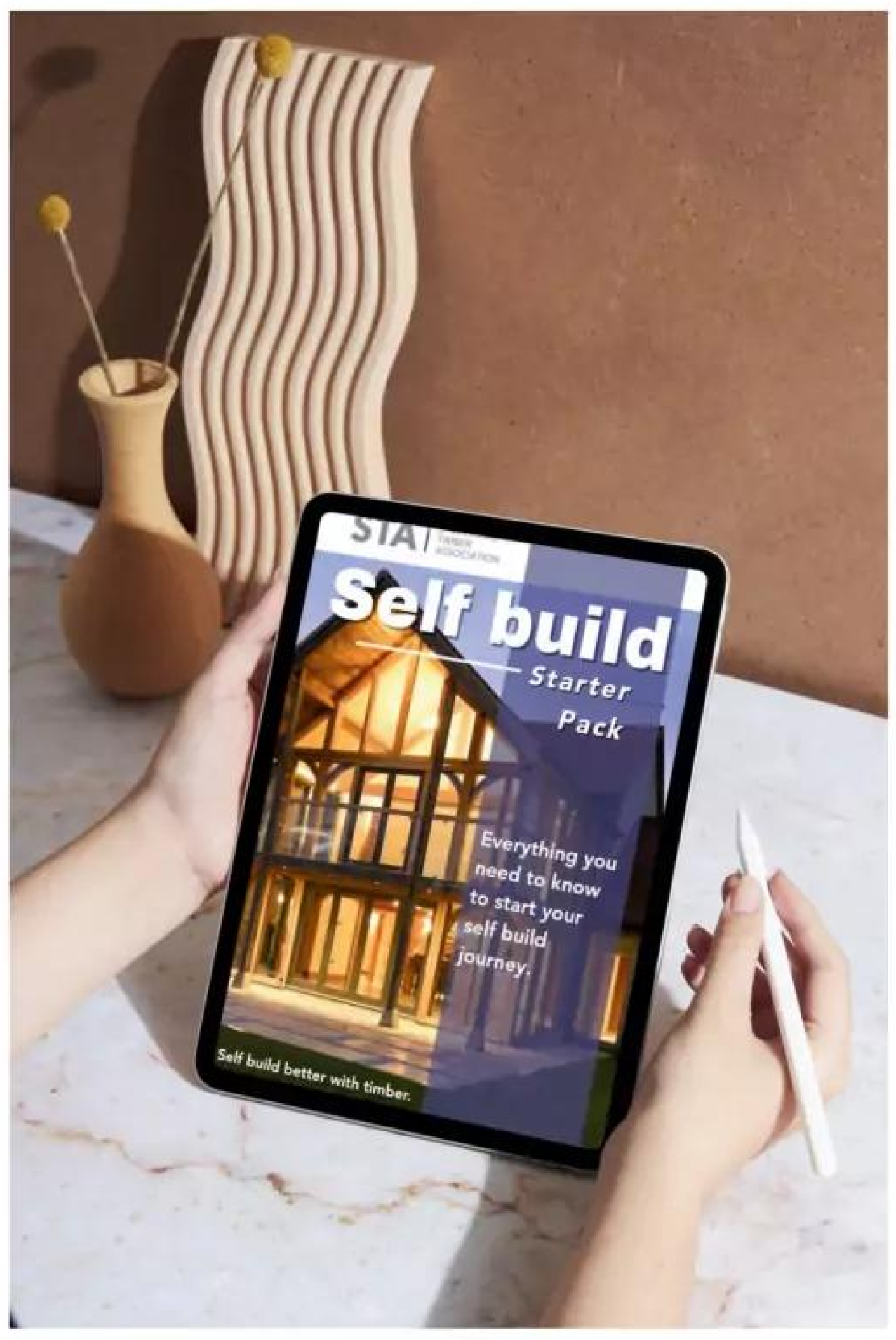
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Amazing centre, such a great resource for anyone renovating or building a home. The staff are amazing, it's a shining testament to an employee owned business. Well worth a visit." – Nathan ★★★★★

"This is probably the best value and most useful resource - vital for any new builder, self builder or renovator!" – Adam ★★★★★

"It was an extremely comprehensive and packed display area the size of a warehouse full of large 3D houses and rooms and construction examples and details plus very knowledgeable and helpful assistants plus cafe, EV charging points - we will have to visit again!" – Nicholas ★★★★★

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  Fri 30th Jan – Sun 1st Feb '26
  Fri 15th – Sat 16th May '26

Free Workshops

- » Self Build
- » Renovation
- » Passivhaus

Training Courses

- » Self Build
- » Project Management
- » Renovation Projects
- » Planning Permission
- » Getting your Project Started
- » Finding Land & Appraising a Plot
- » VAT Claims

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The **National Self Build & Renovation Centre** has developed a suite of training courses for a wide range of projects; whether you are planning a **fully-fledged self build**, or a **modest extension**. These in-person and online courses are led by **industry experts** with **years' of experience**, and are aimed at those new to the world of **home building**. These sessions are perfect if you are looking to increase your **knowledge** and **confidence** and provide **outstanding value for money.**

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What you need to get going on creating your dream home

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Check out the inspiring self builds that were crowned winners at the Build It Awards

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10 STEPS TO STARTING YOUR SELF BUILD

Project management expert **Mark Stevenson** sets out the things you need to tick off your list before any construction work can get going on your new dream home

Above: The owners of this stunning home purchased the plot, which had existing planning permission for a new build on a designated brownfield site. However, with breathtaking views over the Chiltern Hills, they enlisted Levitate Architects (levitate.uk.com) to create a more ambitious design, navigating the local council's pre-planning process before consent

Creating a bespoke home is a project that many people aspire to. But with ever increasing red tape and technical requirements, is it something that can be done? Well, yes – and here's how to go about it. Of course, there's no denying building takes a lot of hard work, requiring careful planning and commitment. From setting a budget to finding a plot and breaking ground, each stage is vital in making the dream happen. Here's my practical step by step guide.

1 SETTING THE BUDGET

The budget is the foundation of any self build scheme. Without it, even the best-laid plans can fall apart. Projects often take years to get going, and inflation can make what seemed like a solid allowance feel much tighter. That's why the first step is to validate your build costs and ensure your goals are realistic and achievable.

Start by nailing down your design brief and any special requirements. It's easy to get carried away with trends and upgrades – but focus on the essentials. Do your research, separate the must-haves from the nice-to-haves and be ready to compromise if needed. Visiting self build shows, like Build It Live (www.builditlive.co.uk), is a great way to explore the latest tech and get expert advice firsthand.

Your project budget should cover everything, from the foundations and structural system to finishing touches and site management costs. Keep in mind that over half of your overall spend will typically go towards building the superstructure. Focus on the major expenses that deliver the most value, but don't overlook the smaller costs – they can, and will, add up.

2 FUNDING THE BUILD

Securing self build finance can feel overwhelming, with strict lending rules and intense scrutiny. However, understanding how the project will be funded is crucial to keeping everything flowing smoothly. If you need a mortgage, start the process early. Once you have a mortgage offer, plan the cashflow and review the terms carefully. There will be rules to follow and drawing down funds might take longer than you expect.

3 FINDING A PLOT

Your self build journey begins with securing the perfect piece of land. While the search might seem daunting, with persistence and a reliable strategy, you'll soon find the right site. The best place to start is to decide what your ideal plot looks like. Consider its size, location and the type of home you want to build.

Right: Thanks to its position in an urban conservation area, the design of this contemporary new home had to meet numerous local planning guidelines to get the green light from the local council. Studio AVC (www.studioavc.com) developed a scheme that blends traditional features of the surrounding Victorian architecture with modern details and materials

STUDIO AVC

Understanding the market is essential when looking for land, so once you know where you want to build, research plot prices, local planning policies and trends. **PlotBrowser.com** is an ideal starting point. Speaking with architects, planners and builders can also help you understand local drivers and reveal opportunities that might not be available on the open market.

Remember, the perfect piece of land is rare so be prepared to compromise. Prioritise what matters to you most and be flexible with the less important details.

4 APPRAISING A PLOT

Once you've found what seems to be the perfect patch of land, now comes the critical question: will you actually be allowed to build a home on it? Weighing up the site's potential is vital to avoid costly surprises. A thorough assessment will look at the planning potential, as well as identifying any construction risks so they can be factored into the purchase price.

5 PLANNING CONSENT

Land either comes with existing planning consent or needs approval. While sites with permission are less risky, you'll need to confirm the design suits your needs. If changes are necessary, consider how easy it will be to get approval for amendments. For consented plots, check:

- **Type of permission: Is it outline (more flexibility) or full (specific design approved)?**
- **Expiry date: Ensure the permission won't lapse before you get started on the building work.**
- **Planning conditions: These could include flood mitigation, access requirements or dealing with ecology issues. The key is to understand what's involved.**

For land without consent, the risks are higher, so consult a planning professional to assess its potential before making a purchase. Ideally, make sure the plot is within settlement boundaries or has a designation that is more likely to win approval. If in doubt, request a pre-application meeting with the council. While not binding, it offers insights into the site's likelihood of approval and ways to boost your chances.

6 CHOOSING THE DESIGNER

As a self builder, your job is to provide a design brief and clearly set out your budget. It's up to you to appoint the professional who puts your plans together, so look for someone who is interested, within your budget, shares your vision and has the competence to create what you want to build. The right individual doesn't have to be a traditional architect, but they do need practical experience and the ability to balance your brief with the

Below: Helyer Davies Architects (www.hdarchitects.co.uk) developed the design for this new home. When setting out their budget, the owners prioritised expansive glazing to maximise views. They also budgeted for solar panels and a ground source heat pump

MARTIN GARDNER

Above: Welsh Oak Frame (welshoakframe.com) developed the design for this handsome home in Kent. The owners appointed their own builder, who was helpful in making suggestions as the project progressed. Though they handled the project management themselves, the owners' skills blended well with the expertise of the contractor they'd selected

planning constraints, as well as integrating the different design elements of your house and making sure all details are compliant with the Building Regulations.

7 DEVELOPING YOUR PLANS

Design is the cornerstone of creating a home that will meet your needs and budget. It's not just about construction drawings, but also creating a cohesive plan that satisfies the planning and building control departments and ensures everything can be constructed, from the foundations to the final touches. Even if you have consent, it doesn't mean you'll have a design that's ready to build. You'll need detailed plans to address planning conditions and estimate construction costs. You'll also need to ensure the house is buildable and compliant with regulations. The key stages of self build design are:

1 Planning design: After your scheme is granted planning approval, review the drawings carefully and make sure they truly meet your needs. If not, address changes now rather than during construction.

2 Technical design: These aspects become the focus once planning is finalised. This stage involves creating construction drawings that comply with Building Regs and coordinate all design disciplines.

8 GETTING READY TO BUILD

With the paperwork and planning done, you can prepare to break ground. The best way to ensure your build starts on time is to follow a clearly mapped out strategy. While a construction programme is vital, the pre-start action plan is critical, too. Think of it as a to-do list, outlining the key tasks and when they need to be done – this ensures long lead items arrive on time.

9 CDM REQUIREMENTS

The Construction Design and Management (CDM) Regulations apply to all construction projects, including self builds. These rules ensure health and safety are properly managed to protect everyone involved. Be aware that compliance is mandatory for all self build projects.

If you hire a professional to manage your build, you'll fall under the category of 'domestic client' and your only legal duty is to appoint a principal designer and contractor. For self builders managing their own project, however, CDM responsibilities increase.

10 APPOINT A BUILDER

Finding a great builder can be a bit tricky, but if your self build project looks attractive and well thought-out, you'll get plenty of interest. However, add a tight budget or construction complexities, and your options for good builders can narrow quickly.

It's natural to feel nervous when your life savings are at stake, but don't worry – most builders are good, and with the right approach you'll find the perfect match. The good ones are busy and selective. To attract one, ensure your project is well-prepared with a detailed design. As well as dimensioned plans and elevations, provide construction details, and address tricky areas that could drive up costs. A clear scope of work outlining your expectations is essential. Builders will assess you as much as they'll evaluate the project, so show you're organised, decisive and clear about what you want. Ask for references and speak directly to past clients.

MARK STEVENSON

Mark Stevenson has worked as a construction professional for over 35 years and is a serial self builder. He runs project management consultancy Elsworth Projects and, as chair of NaCSBA, advocates for the interests of self builders and contributes to the success of the emerging custom build industry.

QUICK LINKS

This special edition of Build It magazine is full of topics touched on in this article:

p32 What does it cost to self build?
p34 Financing your build
p38 Finding & buying a plot
p48 Designing your home
p59 Project management
p62 Getting planning permission
p64 Building Regulations
p86 Finding trades

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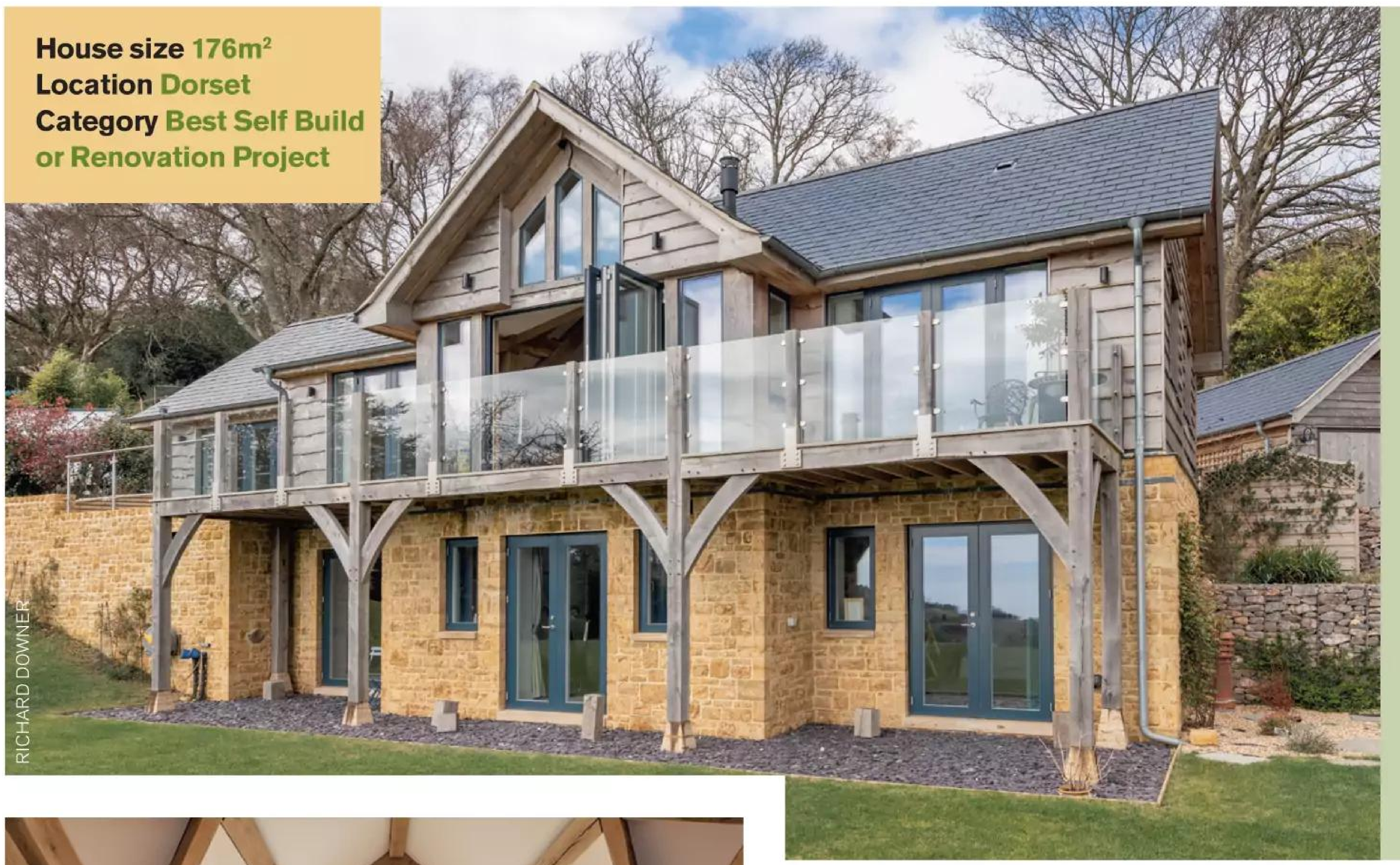
AWARD-WINNING SELF BUILDS

From breathtaking eco homes that blend into their surroundings through to modest builds that perfectly match the homeowners' wishlist, be inspired by the projects that were crowned winners at the latest Build It Awards

House size 176m^2
Location Dorset
Category Best Self Build or Renovation Project

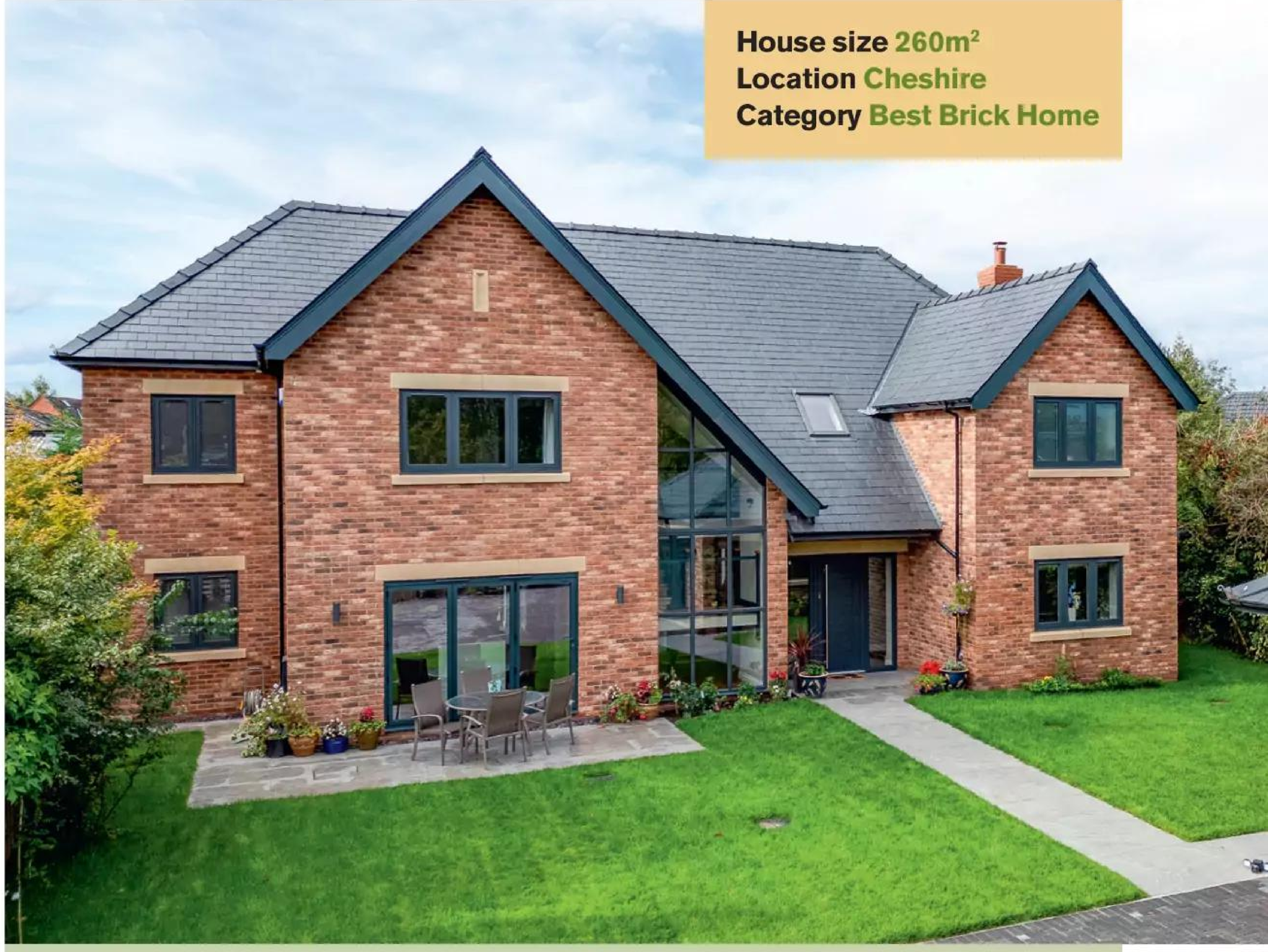


RICHARD DOWNER

FRAMING VIEWS ON A SLOPING PLOT

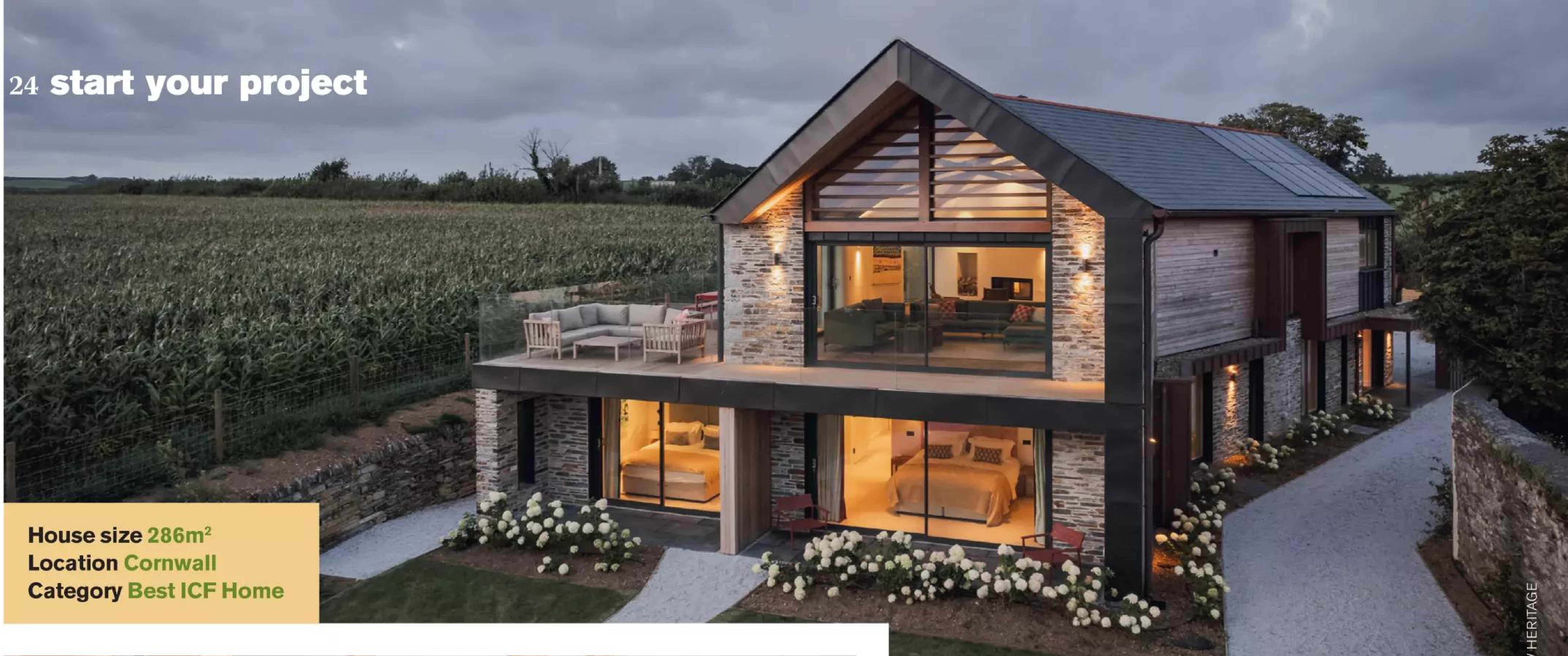
Replacing a 1950s prefab bungalow in Dorset has given Chris and Mary Noon the home of their dreams. The couple fell in love with the character of oak frame houses, and selected Westwind Oak to realise their self build, designed by Roderick James Architects. The original planning consent was for a single-storey build, so the team turned the site's extreme slope into an advantage. The upside-down layout was enabled by digging into the hill and building hefty retaining walls. It allows for a 1.5-storey design, with all the key living spaces upstairs on the entrance storey. "I'd recommend self building to anyone," says Chris, "though I wouldn't do it again, as what we've created is so fantastic!"

House size 260m^2
Location Cheshire
Category Best Brick Home



TRANSFORMING A GARDEN PLOT

Packed with contemporary character, yet grounded in classic design, this project by CB Homes is a backland development on the owners' garden plot. Specifying the right brick was crucial for planning and to create the desired aesthetic. It's inspired by the context; the house is surrounded by Victorian terraces to the front, with 1990s estate homes at the rear. This informed the choice of Wienerberger's hand-moulded Hathaway Brindle brick, with its heritage-inspired tones adding depth and texture to the contemporary architectural design. A coloured mortar with flush-handle pointing, and light stone lintels, help to soften the brickwork while enabling the grey-framed windows and doors to stand out. **(cbhomes.co.uk)**



House size 286m²
Location Cornwall
Category Best ICF Home

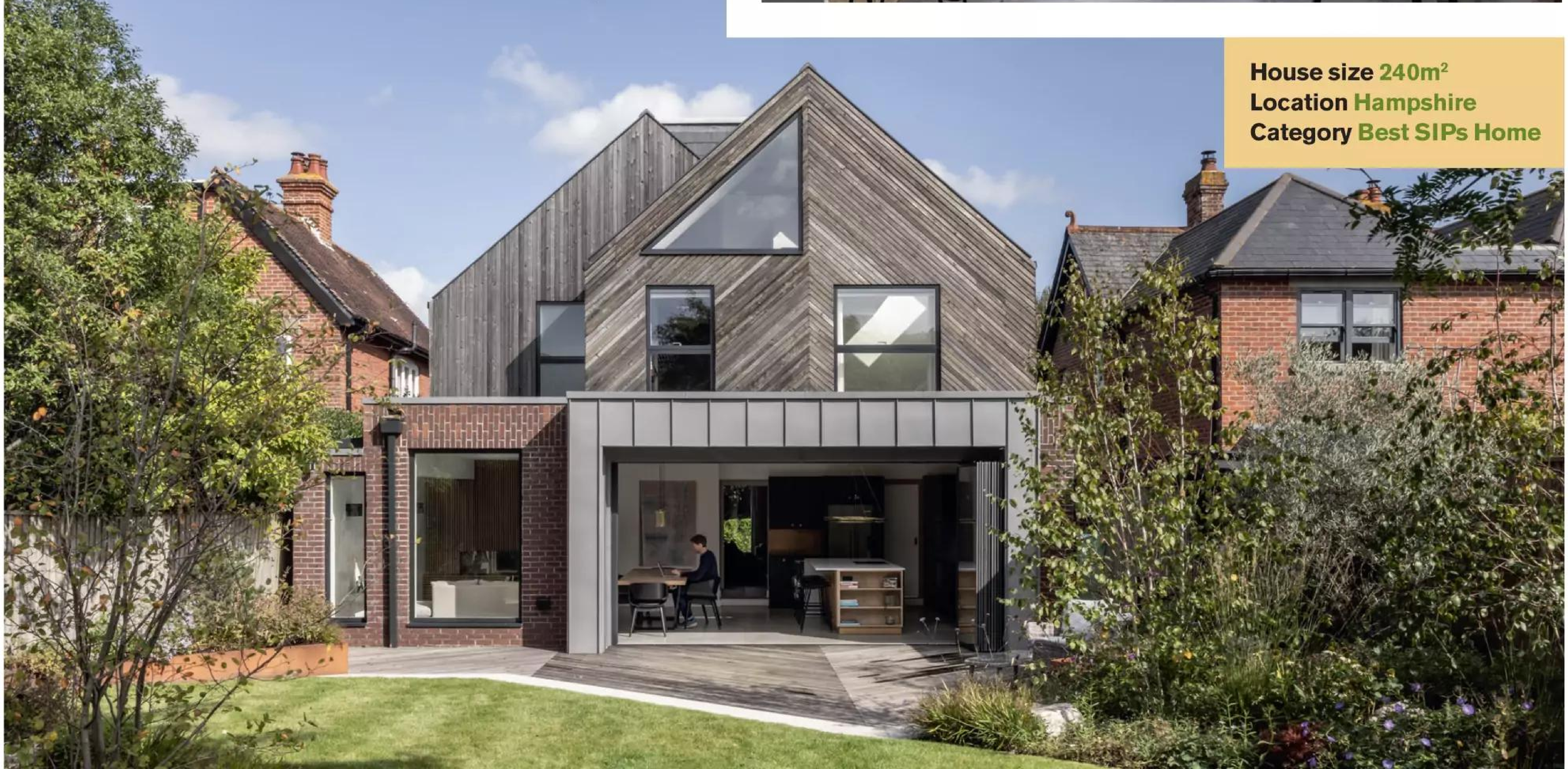
MATTHEW HERITAGE

BARN-STYLE ICF BUILD

ARCO2 Architecture's design for this stunning new home is based on traditional vernacular Cornish farm buildings, with a scale and mass similar to the property it replaced. A mix of stone, timber and copper cladding adds texture and vibrancy to the exteriors, while the kinked form helps to take full advantage of the plot's panoramic views. Cornish ICF system R-Wall was chosen for the walls and ground floor, delivering a thermal bridge-free structure and good airtightness. The gorgeous curved reveals to the windows and doors are testament to ICF's versatility and help increase access to natural light. **(arco2.co.uk)**

SIPS BUILD WITH CRISP DETAILS

Sketch Architect's Broad Lane features playful design and striking detailing, accentuating the vaulted rooflines with a mix of vertical and diagonal larch cladding, alongside stylish brick and zinc finishes. SIPs was chosen to achieve the desired thermal performance and airtightness, as well as to assist the homeowners in self-managing their first self build. The entire superstructure was engineered and installed by specialist Bentley SIPs, reducing on site construction time. SIPs also helped to maximise usable space on the top floor, with the pre-insulated panels and a dormer addition enabling secondary living areas in the roof space. **(sketch-architects.co.uk)**



House size 240m²
Location Hampshire
Category Best SIPs Home

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House size 186m²
Location Kent
Category Best Self Build for Under £300,000

VALUE-FOR-MONEY SELF BUILD

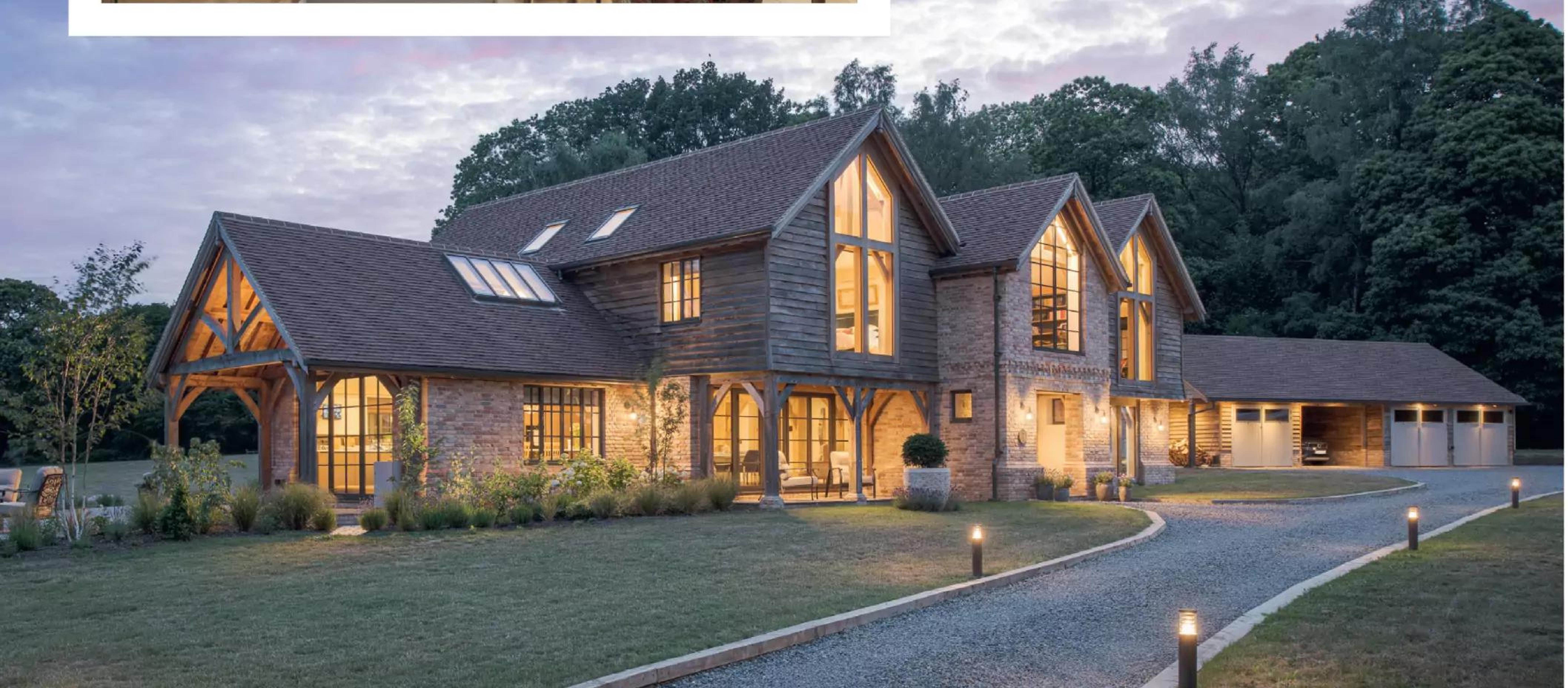
This hands-on project represents fantastic value for the size and quality of the bespoke finished house. It was designed by the homeowners in partnership with Scandinavian Homes, which also supplied the log and timber frame house shell. Working with a tight budget, the family opted for a shell build. This meant that, with the house wind and watertight, they took on the lion's share of the internal fit-out themselves, only contracting additional trades when necessary. This sweat equity added time, but enabled them to focus their budget on the features that mattered most to them, creating a beautiful and high-spec home that achieves an A+ rating for energy efficiency. **(scandinavianhomes.com)**

MARK WATTS

House size 418m²
Location Essex
Category Best Oak Frame Home

OAK FRAME MASTERPIECE

Long-time collaborators Oakwrights and PJT Design have excelled to create a spectacular countryside house, tailored to its woodland plot and delivering exactly what the client wanted: "an oak frame farmhouse with a modern twist." The H-shaped main floorplan, with central entrance projection, creates a stunning triple-ridge roof that defines the external architecture. Future-proofing was built into the project. A downstairs study can transform into an ensuite bedroom, while a lift has been installed up to first floor level. Oakwrights' WrightWall and WrightRoof insulating encapsulating panels ensure great energy performance, too. **(oakwrights.co.uk /pjtdesign.co.uk)**



House size 170m²
Location Lancashire
Category Best Timber Frame Home

TIMBER FRAME DREAM HOME

Nestled harmoniously into its green belt woodland plot, in close proximity to a listed building by celebrated architect Edwin Lutyens – with all its consequent planning challenges – this house is necessarily modest and understated from the outside. Step indoors, however, and the timber frame architecture sings. This project is an exemplar of how to achieve a beautiful bespoke home on a tricky plot. Key to that was the collaboration between TAS Architects, Timber Innovations and the homeowners. This is a house that was designed in timber frame from the off, with a low-key exterior aesthetic that works beautifully in its setting, yet surprises with crisp, wow-factor details throughout the interior. **(timberinnovations.co.uk)**

WORKING WITH THE LANDSCAPE

Set alongside the river Avon, and surrounded by trees, this plot slopes steeply down to the bank along the western boundary – affording far-reaching views of the Salisbury plains. AR Design Studio's response is a breathtaking house comprised of three wings, but which nevertheless appears as a single-storey pavilion from the main approach. Each has a pitched roof and splays outwards and upwards, maximising light, space and views. Internally, each volume has a different function. One is dedicated to living areas; another to the master bedroom, dressing room and office; and the last to back-of-house activities, including a garage, boot room and utility. **(ardesignstudio.co.uk)**

MARTIN GARDNER

House size 296m²
Location Wiltshire
Category Best Architect or Designer for a Self Build Project

House size 300m²
Location Northumberland
Category Best Eco Home

OFF-GRID ECO HOME

Even in this age of ever more efficient technologies, it's a tough challenge to go truly off-grid and create a comfortable modern house powered purely by renewables. To stand a chance, you need the right site, with the right natural resources, and a team committed to your sustainability goals. Happily for the owners of this stylish 1.5-storey home, they were able to bring all those ingredients together, and more. Engineered and installed by SIPs@Clays, the airtight SIPs shell is a 142mm Kingspan TEK system that has created an impressive 0.6m³/hr/m² airtightness result. Complementing the high-quality structure, triple glazing, 6.4kW of solar panels, a 3kW wind turbine with lithium battery, bioethanol stove and an MVHR system all contribute to this low-energy home. **(clays.com)**

House size 160m²
Location Norfolk
Category Best Turnkey home

SMOOTH TURNKEY BUILD

When Harry Van Gorkum found the perfect self build site (a farmer's field that had been split into six serviced plots) as luck would have it, a Dan-Wood house was being built next door. Harry was so impressed, he engaged the company for his own project – his first self build. Among the attractions of Dan-Wood's approach was the transparent pricing (guaranteed for a year); speed of construction; build quality and energy efficiency; and the ability to tailor and upgrade its house models. "When I was looking to build my own home, I had no idea where to start," he says. "Dan-Wood's agents guided me, a total novice, through the process – helping me create the home I have always wanted, to my taste and requirements." **(dan-wood.co.uk)**

Build It AWARDS 2024
WINNER
Best Turnkey Home

"I had a dream in my head and I'm now living in it. When I found Dan-Wood it was an 'Aha!' moment. It was a win-win for me, and I've never lived in a more perfect home!"

Harry van Gorkum, owner,
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WHAT DOES IT COST TO SELF BUILD?

Every project is unique, so budgets vary, but working out how much it'll cost to take your dream home from concept to completion is key to a successful build

WORDS MARK STEVENSON

Total cost	£550,000
Total size	273m²
Cost per m²	£2,015
Plot size	0.25 acre
Plot cost	£450,000
Completed	2022

KATHERINE ALONDA

Build It readers Rick and Julie Anderson replaced a former chicken shed with a beautiful two-storey home nestled in the Kent countryside, inspired by local rural architecture. The front and rear elevations feature extensive triple glazing, complemented by durable composite cladding, reclaimed ragstone and low-maintenance concrete roof tiles

If you're planning to build your own home, your first question is likely to be, "how much will it actually cost to build?" The answer depends on various factors, including the size and complexity of the house, its location, the specification and how you'll manage the project.

A larger, more complicated self build will naturally cost more in materials, labour and time. Location matters, too, as some areas in the UK have higher construction costs due to demand for trades and materials. Specification also plays a big part, and high-end finishes or bespoke features push up prices. Your project route is another key factor: self-managing or taking on some of the work on a DIY basis can save money; while hiring a main contractor or a turnkey provider will offer convenience but is likely to increase your costs.

How much does building a house cost?

One of the best ways to get an idea of your build cost is by looking at the price per m² of completed floor space, otherwise known as the gross internal floor area (GIA). In 2025, an average self build is likely to cost **£2,500 per m²**. However, this is just a general guide. A cost-conscious, self-managed bespoke home project could come in as low as **£2,200 per m²**, while a high-end build with intricate detailing could easily exceed **£2,800 per m²**. Of course, some of you may be working to higher budgets – Build It has seen plenty of super-spec projects costing **£6,000+ per m²**.

Performance standard will impact on costs. A house built to minimum Building Regulations will be cheaper than one designed to Passivhaus standards, for example, which could cost around 20% more due to extra insulation, various technologies, airtight construction, product certifications and completion testing.

So, if you're planning a 200m² home, a typical build cost could range from **£440,000-£560,000**, depending on a range of factors. If that figure sounds out of your reach, don't worry – it's possible to build a high-quality property on a tighter budget. Here are five ways to stay on target when self building a brand new home:

1 START WITH A REALISTIC BUDGET

Figure out how much you can afford to spend. This means assessing your available funds, including savings, equity and potential for borrowing. Speak to a mortgage broker early on to get an understanding of your borrowing power and affordability.

Once you know your total budget, compare it to your expected build costs. If the numbers don't add up, now's the time to adjust your plan – whether that means reducing the scale of the house, simplifying the design, or exploring cost-saving construction methods. Don't forget to check the total development cost (land + build + fees) against the estimated end value of your completed home. Ideally, you'll create equity in the process; if the figures don't add up, then reconsider your approach.

2 PUT TOGETHER A DETAILED BUILD BUDGET

To avoid nasty surprises later, you need a clear and proven itemised budget set out well before you start. To test the budget, send out enquiries using your drawings and a detailed scope of work (what you want to be included). It's a good idea to incorporate a specification list, containing materials and finishes, and don't forget to thoroughly read through the quotations that you receive to check they include everything that you want.

3 REDUCE THE RISK OF COST OVERRUNS

No self build project is exempt from unexpected costs, but you can minimise potential risks with careful planning. For instance, investigate your plot's ground conditions before you start on site, as unforeseen foundation work is a common budget-buster. Check the scope of work and specification carefully before accepting quotes. The more precise you are, the less likely you'll need to make expensive alterations further down the line. One of the biggest causes of budget overruns is changing your mind, so bolt things down and try to avoid any inclination to modify your scheme.

Professional fees can also creep up on you. Architects and engineers, for example, charge a percentage of the total build cost, meaning their fees rise as your budget increases. Where possible, look to negotiate fixed prices.

4 KEEP COSTS UNDER CONTROL DURING THE BUILD

Once construction is underway, strong commercial control is critical. You should set up a budget tracker to compare actual, real-time costs against your original plan.

Cash flow is equally as important. If you're relying on a self build mortgage, remember that funds are released in stages. Make sure you have enough available to pay suppliers and contractors on time, so work isn't delayed.

A risk and opportunity register can also be very useful. This is a straightforward document that helps you to manage commercial matters by focusing your attention on potential risks (price increases or complex details) alongside cost-saving opportunities, such as bulk discounts or specification downgrades.

5 BE SMART ABOUT WHERE YOU SPEND

Always focus your budget on the most important elements. Structural components, such as foundations and external walls, might look expensive but they're essential and can't be changed later, so get this right from the start. Finishes and fittings can be upgraded later, so it's possible to consider budget-friendly options initially improve them over time.

Offsite-manufactured systems, such as timber frame or SIPs, offer cost certainty and predictable pricing as well as quicker build times, helping you to stay on budget. Sourcing materials yourself can also yield good savings – contractors won't always hunt for bargains.

By setting a realistic budget, planning carefully and keeping tight control of spending, you can build a high-quality self build home without the worry of busting your project budget. The key is to understand where your money is being spent and remaining open-minded to savings when the opportunity arises.

HOW TO VALUE ENGINEER A HOUSE DESIGN

LUI ROCCA architectural designer at Welsh Oak Frame (welshoak frame.com), explores how you can make cost-effective decisions when designing your dream home

Q How will the shape of my house impact costs?
Complicated designs can add to the budget; opting for a more standard, simple architecture could help you save on construction costs. Dormer windows, lots of corners and a large amount of junctions in the plan will drive up the project's overall price, as these features are more complex to manufacture and erect.

Q Which structural methods can give you the best value for money?
Wood-based structural systems, such as timber frame, oak frame or SIPs, can offer great value for money and will ensure an energy-efficient structural envelope. They all have their pros and cons, though, and some will work better in certain scenarios. If you're considering oak for your home project, adopting a hybrid approach and reserving oak for those high-impact areas, with a hidden softwood frame in the less important rooms, is a great, cost-effective way to add character.

Q How can I be smart with spending & reduce costs?
One of the best ways to save money is to get involved with the build in as many ways as possible. The more work you can do yourself, the lower your construction costs will be. Focus your budget on the essential aspects, such as a suitable build system and quality superstructure, efficient glazing and high-performance insulation – often referred to as a fabric-first approach. Work with experienced professionals to get these features right first time round. Look to save on features that you won't see – such as kitchen carcasses. Overspends tend to be the interior specifications, such as flooring, staircases and kitchens, tend to push budgets over the edge – many self builders don't realise how much these elements can cost.

FOUR WALLS

After Build It readers Len & Yvonne Rose's cottage was destroyed in a fire, they decided against moving to a different location and instead self built a new home on the same plot. The couple opted for a timber frame package from Scandia-Hus (scandia-hus.co.uk) for the house's structure, specified on a shell package basis, sourcing their own contractor to erect the frame

Total cost	**£584,670**
Total size	146m2
Cost per m^2	£4,005
Timber kit cost	£250,000
Timber kit cost per m^2	£1,404
Completed	2023

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Financing your dream home

Self build mortgages ensure you have the right project funds when you need them. Here's how to ensure a successful application

WORDS MARK STEVENSON

So, you've found a plot and can already picture yourself sipping coffee in your designer kitchen – but when you pop into your high street bank to ask about funding, you're met with blank stares and polite rejections. High street banks aren't exactly falling over themselves to offer mortgages for self build projects, but this doesn't have to mean the end of your bespoke home dream. This article explains why big banks aren't so friendly, where to look instead, and how you can make yourself look like a five-star borrower to secure funding for your scheme.

What is a self build mortgage?

A self build mortgage is a loan specifically designed to fund the construction of your own home. Unlike traditional products, which provide a lump sum of money to buy a property, this specialist finance releases funds in stages throughout the duration of the building project. For example, you might get a chunk of the mortgage for purchasing your self build plot, another for achieving the weathertight house shell and so on. The staged release provides the cash flow you need in order to cover construction. This process also reassures the lender, as they only need to release smaller amounts of money to pay for the work being done, rather than risk handing over a large chunk of cash with nothing to show for it.

Why don't high street banks offer self build mortgages?

Most of them see self build as a bit risky. When they lend on an existing property, there's a physical asset they could sell if things go wrong. But with a self build, the asset (ie your new home) doesn't exist yet. So until the project is completed, they've only got a part-finished house, which – according to their conventional money lending models – isn't enough security for the bank.

Perhaps more importantly, high street banks don't have the knowledge, resource or experience to oversee these kinds of staged releases. Self build projects are complicated and require a lender who understands the regulatory requirements, as well as construction timelines and how these homes are professionally built. For the big banks, this can just be more hassle than it's worth,

RECLAIMING VAT ON YOUR SELF BUILD

When you self build a home, you are entitled to zero rated VAT on materials and services for your project. If your contractor is VAT registered, then you just won't pay them VAT (the same is true with conversion projects, although note that the process is a bit different). But you will still need to pay the VAT upfront on any materials you buy yourself and then go through a process of reclaiming that money once your project is completed.

You have six months from your self build project completion certificate to submit your VAT reclaim via a VAT Notice 431NB form. Along with all your invoices, you'll need to include your planning permission, detailed professional plans and evidence that the building work is finished.

so they prefer to leave it to specialist providers who have plenty of experience with construction projects.

This is where building societies step in. They are more flexible and willing to work with self builders as they're more agile and used to funding developments. They have processes to manage challenges and can ensure that staged payments work for both them and you.

Some of these building societies, however, do prefer that borrowers work with them through experienced brokers. Why? Because the brokers are familiar with the process of home building, they know how to deal with self builders and can manage the risks involved. For the lender, this means fewer surprises and less chance of things going wrong.

How to secure the best mortgage offer

So, now you know who will lend to you, how can you be confident of securing the right mortgage? As with any construction project, self building has risks, so lenders will carefully scrutinise applications before they make an offer. If your application isn't first-rate, you might not get the funds you need for the project. So, to maximise your chances of getting the highest possible self build mortgage offer, it's vital that you present yourself and your project in the best light. Here's what to do:

1 Assess & improve your current credit score

Lenders want to see you're responsible with credit, and a strong score helps prove that. Before applying, check your credit report and make sure everything's in order. Pay down any lingering credit card balances or personal loans, as high debt can make you look financially stretched.

2 Minimise any unnecessary outgoings & expenses

Big monthly expenses can reduce your mortgage offer, on the basis of affordability. So, it's worth cutting down wherever possible to demonstrate you can confidently manage the regular repayments.

Cancel underused subscriptions or consider giving these up, at least temporarily. Reduce discretionary spending by cutting back on luxuries that could be seen as non-essential. Dining out every week or splurging on designer clothes might look frivolous to a lender. Lenders will be concerned about anyone that appears not to have financial control. Remember, making small changes in advance of an application can boost your affordability later, so clean up your finances.

3 Have professional plans & specifications

Lenders like to see what they're backing, so make sure your plans and specifications are professional. They'll want to understand the finer detail to know your proposals fit with their rules. And this isn't just about the structure or what cladding you'll use; they'll assess the value of the finished property, too. It's best to treat this like a pitch – the more you can do to show your finished home will be professionally built, high quality and valuable, the more confident lenders will feel about financing it.

4 Have a proven build budget

Since self build mortgages rely on stage releases, the lender wants to know that each drawdown of funds will be enough money to keep the project progressing. They'll also want reassurance that you're not going to run out of money part way through the build. It is therefore essential that you put together a detailed budget that proves you understand the various costs involved throughout your project, leaving nothing to guesswork.

Using the Build It Estimating Service (buildit.co.uk/estimate) is a good first step, as this will enable you to better understand the figures that trades put forward. But your budget should also be backed up with multiple quotes to show your figures are realistic and reliable.

Things don't always go to plan, so the lender will expect to see a contingency of around 10-15% of the construction costs. This must reflect the risks, so to keep this minimal, deal with any problem areas and cut out complexity at the design stage.

5 Work closely with the broker or lender

Self build mortgages aren't as straightforward as traditional ones, so clear communication is essential. You'll need to provide proof of income, your credit history, your build's budget, and any other financial info they request. Present the information as clearly as possible so it can be fully considered by the lender. They will value honesty and prefer borrowers who are upfront about any risks or challenges, so don't hide potential issues.

Getting a self build mortgage may be more work than a standard loan, but with a strong credit score, clear plans, careful budgeting and a little financial tidying, you can position yourself as a strong applicant and secure what you need. Remember, the more prepared you are, the easier it will be to show lenders that you're ready to take on a self build and that you're financially equipped to see it through to completion.

TYPES OF SELF BUILD MORTGAGE

ADVANCE STAGE PAYMENT MORTGAGES (COST-BASED)
When the mortgage payments are made to you before the relevant stage is completed. This means you can buy the materials and pay for labour using your mortgage.

ARREARS STAGE PAYMENT MORTGAGES (VALUE-BASED)
With an arrears product, you need funds to pay suppliers and trades yourself. With a value-based product, the lender sends a surveyor to inspect each completed stage of works, and pays out (at the agreed percentage) based on their valuation.

ARREARS STAGE PAYMENT MORTGAGES (COST-BASED)
A cost-based mortgage is linked to what you pay for each stage of your project.

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Know Your VAT Position

SPECIALISING IN VAT RECLAIMS FOR
ANDREW JONES
AKA THE VATMAN
NEW BUILDS & CONVERSIONS

Andrew Jones the VAT man is a leading specialist on the VAT 431 scheme for reclaiming VAT on self builds, covering both new builds and conversions when building for yourself or a direct family member. Here, he answers self builders' most frequently asked questions on the ins and outs of the scheme, and how his firm can help.

Hi Andrew, could you briefly summarise what the scheme is all about?

The scheme has been around in different formats since 1974. It is designed - although I'd say it's perhaps not as successful as it could be - to put private individuals on the same level playing field as a VAT registered developer.

So every company and person who creates a new dwelling uses this scheme?

No, this scheme is for private individuals, not for business or developers.

When you say you'd not quite agree with it being successful, could you expand on that?

Firstly, there are a lot of costs that cannot be reclaimed under the scheme, whereas a developer benefits from all these. HMRC may actively seek reasons not to repay the claim, and subsequently reasons to reduce the claim once they have acknowledged the claim is valid.

What reasons could HMRC have for refusing the claim in its entirety?

There is a very small time frame in which to submit - should you submit outside of that time frame, HMRC could refuse. Another reason could be that the planning restricts its disposal from another dwelling or a business or where the dwelling is a holiday let. Another search carried out under this scheme is to see if the property is being sold or let. You cannot sell a property when building and reclaiming the VAT under this scheme. Although there is no time limit under the scheme for the amount of time you have to live there afterwards.

And what about reducing the claim after overcoming that hurdle?

HMRC require to view the original invoices. Order confirmations, proformas, quotations and so on, will not be accepted. So you must present HMRC with the correct documents. Another reason is if you have paid the wrong rate of VAT to your supplier, HMRC will not reimburse VAT charged at the incorrect rate to you in your VAT reclaim.

That is confusing, as I thought everyone pays 20% VAT and you send all the bills to HMRC at the end and wait for your cheque. Maybe it's not as straightforward?

You're correct in theory. There are two variations to the VAT431 scheme, new build or conversion. It's important you apply the correct rate of VAT to your project. On a new build, any contractor visiting site to do work for you should not charge you VAT on their labour or any materials used, as your project is zero rated VAT. This does not apply to purchases made at builder's merchants and other suppliers, where you will pay 20% as normal and then reclaim the VAT in your VAT reclaim. If you pay 20% to a contractor and should not have done so, HMRC will not reimburse this to you despite the contractor having passed the VAT onto HMRC in their quarterly VAT return.

On a conversion, it's slightly more complicated; here any contractor visiting site to do work for you should only charge you 5% VAT for their labour and all the materials used, then the 5% invoices are included together in your VAT reclaim with your 20% purchases from builder's merchants and alike. Should you pay 20% VAT when you should have paid 5%, HMRC will not reimburse you any of the VAT on that invoice - neither the 20%, the 5% nor the difference.

How can you let your builder know you're not on the 20% VAT?

If you are in any doubt if you're 5% or zero rated to contractors, don't hesitate in contacting me and I'll review your planning. But if you are sure of your position then good practice would be to present the contractor with your planning decision notice for their records.

Is it that simple? What if the builder refuses?

There are two common difficulties here. The contractor may ask for a VAT exemption certificate or a reduced rate of VAT certificate, or may refuse outright. If they ask for a certificate, we can help, as HMRC have not provided these since maybe before the 90s, but we have an alternative. (Please do not let this put you off the contractor, they're just making sure and covering their own financial exposure). If the builder outright refuses, you need to decide if you want to deal with someone who does not follow the rules, and if you're paying them more than you should.

So where does your firm fit into all of this?

We provide a submission preparation service, where we take your invoices - in whatever condition you have them, you need to do nothing with them - and we will submit your reclaim for you. We will contact suppliers for correct documents, make sure no stone is left unturned in order to maximise your reclaim and most importantly, assist in appeasing HMRC when the questions arrive after submitting the reclaim.

So what do you see as the most difficult part of the VAT reclaim process for self builders?

We have only covered some of the big issues, and each person and project have their own potential pitfalls, but briefly from a self builders' view point - when to submit, making sure it's the correct rate of VAT, names on the invoices, and HMRC's questions after submitting. From our position we find the most difficult being the challenge of correcting the errors HMRC identify in your claim. Which is why we prioritise getting it as correct as possible at the point of submission. However, I have a helpful booklet with over 100 Q&A's similar to the above. If you would like a copy, or a free no obligation consultation please get in touch today.

LEARN ALL ABOUT IT

Andrew hosts a 4hr teaching class about self-build VAT & reclaim held at The National Self Build & Renovation Centre in Swindon several times a year.

Call **01793847418**, select **option 3** & speak with Kirsty about upcoming dates.

The show guide to reclaiming VAT when creating or converting a new dwelling for yourself

SPECIALISING IN VAT RECLAIMS FOR
ANDREW JONES
AKA THE VATMAN
NEW BUILDS & CONVERSIONS

NEW BUILD

Self build, replacement dwelling, holiday home for personal use, completing a new build after a builder or if you take over another persons unfinished project.

Visit our YouTube Channel and listen to Andrew talk you through this guide page by page

CONVERSION

Redundant farm buildings, commercial to residential, redundant places of worship, property empty for over ten years & most non-residential buildings.

Andrew Jones AKA - The VAT Man

Specialist in processing VAT Reclaims all over the UK

Suggested reading: As early as possible in your project

VAT REFUND UNDER VAT431

VAT RECLAIM SCHEME

Andrew Direct: 07816 825248 **Office:** 01269 825248

Email: andrew@vat431.co.uk **Web:** www.vat431.co.uk

Self build & custom build mortgage table

Looking to fund your bespoke home project? Each month we round up the best deals from leading lenders and update you on what you need to know to secure the right finance

Advance Stage Payment Mortgages

Created by and exclusive to BuildStore, these mortgages provide guaranteed stage payments based on your costs before each phase of the build. This offers certainty in your budget and peace of mind that you can plan for and pay your bills on time.

Arrears Stage Payment Mortgages

These mortages release funds after each stage of building works is completed. To trigger the payments, a valuation must take place that shows an uplift in value. BuildStore's exclusive mortgages can offer increased borrowing of up to 85% of your costs.

Get In Touch

For advice on funding options for your self or custom build project, speak to the experts at BuildStore by calling **0345 223 4647** or visit **www.buildstore.co.uk**

These products are chosen for illustrative purposes, and were available at the time of going to press.

KEY FOR TABLE: ★ BuildStore Exclusive Product | SB Self Build Mortgage | CB Custom Build Mortgage | LTV Loan to Value

Lender		Mortgage Type	Payment Schedule	Contact	LTV Land	LTV End Value	Interest Rate	1st Stage Payment
Chorley BS	★	SB & CB	Advance	0345 223 4647	85%	80%	6.25%	DPP & Building Regs
Darlington BS	★	SB & CB	Advance	0345 223 4647	85%	80%	6.24%	DPP & Building Regs
Furness BS	★	SB & CB	Advance	0345 223 4647	80%	80%	5.84%	DPP & Building Regs
Furness BS (Green Build)	★	SB & CB	Advance	0345 223 4647	80%	80%	6.09%	DPP & Building Regs
Hinckley & Rugby BS	★	SB & CB	Advance	0345 223 4647	90%	80%	6.14%	DPP & Building Regs
Loughborough BS	★	SB & CB	Advance	0345 233 4647	80%	80%	6.25%	DPP & Building Regs
Mansfield BS	★	SB & CB	Advance	0345 223 4647	85%	80%	5.99%	DPP & Building Regs
Tipton & Coseley	★	SB & CB	Advance	0345 223 4647	85%	75%	6.08%	DPP & Building Regs
Vernon BS	★	SB & CB	Advance	0345 223 4647	85%	80%	6.49%	DPP & Building Regs
Chorley BS	★	SB & CB	Arrears	0345 223 4647	50%	60%	5.80%	Foundations
Darlington BS	★	SB & CB	Arrears	0345 223 4647	85%	80%	6.04%	Foundations
Furness BS	★	SB & CB	Arrears	0345 223 4647	70%	70%	5.44%	Foundations
Furness BS (Green Build)	★	SB & CB	Arrears	0345 223 4647	80%	80%	5.78%	Foundations
Hinckley & Rugby BS	★	SB & CB	Arrears	0345 223 4647	90%	80%	6.04%	Foundations
Loughborough BS	★	SB & CB	Arrears	0345 233 4647	80%	80%	6.15%	Foundations
Mansfield BS	★	SB & CB	Arrears	0345 223 4647	80%	80%	5.80%	Foundations
Stafford Railway BS	★	SB & CB	Arrears	0345 223 4647	85%	80%	5.95%	Foundations
Tipton & Coseley BS	★	SB & CB	Arrears	0345 223 4647	85%	75%	5.77%	Foundations
Vernon BS	★	SB & CB	Arrears	0345 223 4647	85%	80%	6.29%	Foundations
Beverley BS		SB	Arrears	01482 881 510	50%	80%	5.99%	Wall Plate
Earl Shilton BS		SB	Arrears	01455 844 422	75%	75%	6.34%	Flexible
Hanley Economic BS		SB	Arrears	01782 255000	80%	80%	6.24%	Foundations
Melton Mowbray BS		SB	Arrears	01664 414 141	n/a	75%	6.00%	Foundations
Penrith BS		SB	Arrears	01768 863 675	80%	80%	5.99%	Foundations
Saffron BS		SB & CB	Arrears	0333 015 2970	80%	80%	6.19%	Flexible
Suffolk BS		SB	Arrears	0330 123 0723	70%	70%	6.05%	Foundations

FINDING YOUR BUILDING PLOT

The first hurdle to starting your project is finding somewhere to build it. Set out for plot hunting success with these top tips

WORDS MARK STEVENSON

Above: Self building wasn't on the cards for Tracey and Stephen Stewart when they moved into their home in High Wickham, but after 15 years of living there their plans changed. An extension wasn't going to create what they wanted and they couldn't find a plot they liked. In the end, knocking down their home and rebuilding in its place was the perfect solution

Building your own home is a hugely exciting and rewarding project. However, the self build journey starts with finding the right piece of land – a task that may feel overwhelming at first glance. Many people think obtaining a good plot is a matter of luck, but actually, it's all about being organised, persistent and having the right plan.

When it comes to plot hunting, putting together a clear strategy is crucial. Randomly searching for land is mostly pointless and usually leads to disappointment. A well-thought-out plan should identify what you're looking for, where you're likely to find it, and how much you're willing to spend. An organised approach will also help to avoid some of the most common pitfalls.

Have a clear vision

The first step is to clearly define what you think the perfect plot is. Consider how big it needs to be and what type of house you want to build, as well as any specific features that are non-negotiable for you. For example, if you want a stone-clad cottage, focus on areas where this style is common, and avoid places dominated by modern brick properties. Once you have a clear vision, the next step is to concentrate your search on particular areas. Instead of looking everywhere, focus on towns or villages where you're more likely to find what you need. Start by signing up to the local council's self build register, which could provide useful leads and indicate the council's support for such projects.

Set a realistic budget

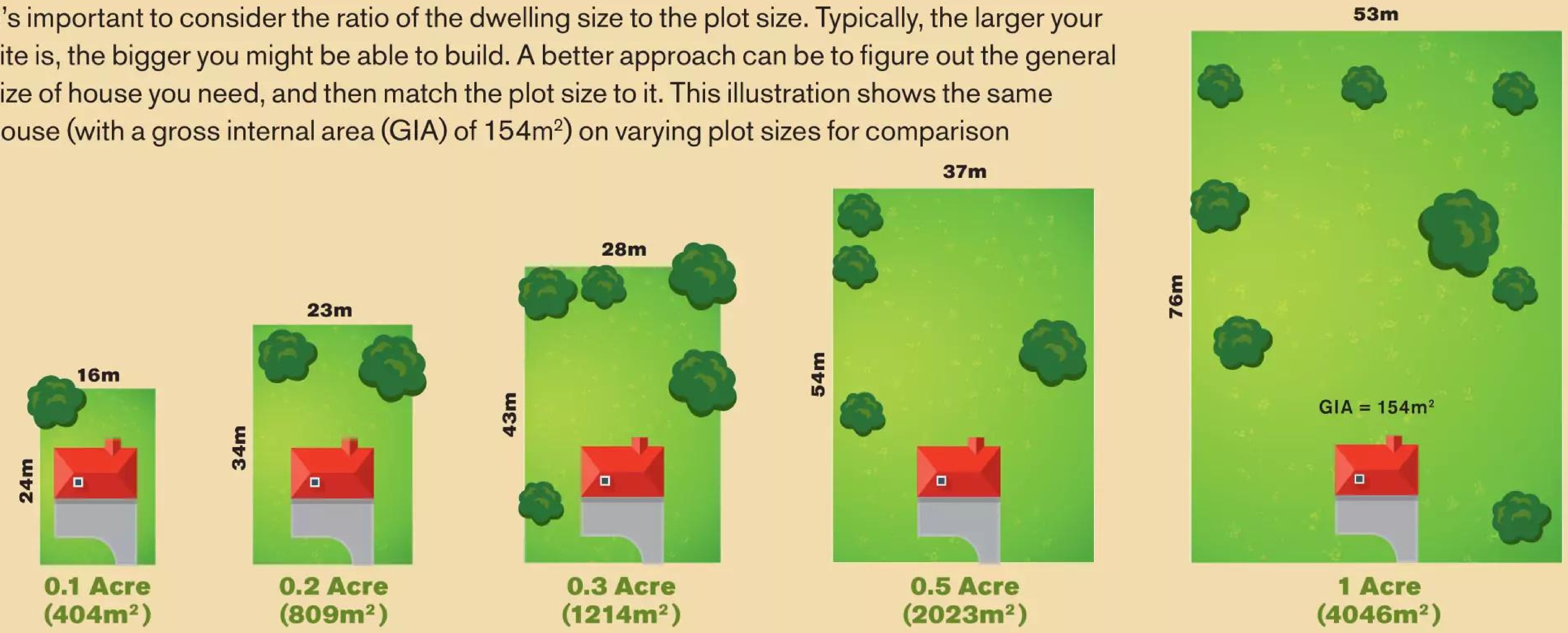
As well as being honest about what you can afford, be realistic about budgets. This means balancing the price of the land, construction and fitting out costs. To work out how much you have for your plot, start by estimating your total project budget, and then subtract the estimated development fees. What's left is your plot budget. Tools like Build It's cost calculator (www.self-build.co.uk/calculator) will help you get a clearer picture.

Understand the market

Knowledge of the local market is essential for success, so do some research to understand key planning policies and constraints. Having the relevant information will help you navigate the rules and spot any credible

LAND VERSUS HOUSE SIZE

It's important to consider the ratio of the dwelling size to the plot size. Typically, the larger your site is, the bigger you might be able to build. A better approach can be to figure out the general size of house you need, and then match the plot size to it. This illustration shows the same house (with a gross internal area (GIA) of 154m²) on varying plot sizes for comparison



opportunities that others might miss. Work out if the area is open to new developments and check whether planning permissions are being granted. Talk to local professionals, such as architects, planners, and builders who'll have valuable insights into what's happening locally and whether your project might be feasible.

Prepare to compromise

The perfect plot is rare, so you'll need to be flexible, or you'll be looking for a very long time. Focus on what's most important to you, whether it's location, plot size, or specific features. For example, while a large plot might sound appealing, most houses don't require much land, so a smaller footprint might work and could be more cost effective. Also, think about replacement dwellings; properties that are in a poor condition, or poorly placed on the site, might offer the perfect chance to rebuild something new. You should look for opportunities for sales with estate agents, but consider off market development options that might not have been considered by the vender or the agent.

Use maps & portals

Maps are invaluable tools for spotting possible plots. Google Maps, Ordnance Surveys and professional tools, such as Promap or Search Land, will provide you with an enhanced level of information and can identify areas with development potential. In addition, every council must advertise and consult on planning applications. The tool they use to do this is the local authority planning portal. This can be found via your council's main website, under the planning tab. It's a treasure trove of information, and you will be able to find digital maps, as well as recently approved projects or applications that were denied (but could be approved with some changes).

Review the plan regularly

Once you've developed your land-finding strategy, it's important to regularly review and update it. Make sure your budget aligns with the current economic conditions and that your project is still feasible in the wider context of any financial constraints. If the market shifts, or if you're not finding what you're looking for, adjust your plan. This might mean scaling down your ambitions, changing your target location, or even reconsidering what you feel is essential for your self build plot.

Plot-finding tactics

There isn't just one way to find the perfect building site and by using a mix of different routes, you can significantly increase your chances of success. Here are some things you should consider:

Target off-market opportunities: One of the best ways to secure a plot is to avoid competition by looking for land that isn't currently on the market. Off-market land includes forgotten pieces of land or properties with potential for redevelopment that haven't been advertised for sale yet. These opportunities are often found by networking and referral, or by directly approaching landowners who may not have considered selling.

Use specialist plot-finding websites: Focused websites, such as Build It's **PlotBrowser.com**, are tailored specifically for self builders, making them a great place to browse for qualified opportunities. They're the best resource to get an overview of what's out there and get a feel for market prices. But remember, competition

Below: Just because a plot is for sale doesn't mean it's going to work for your dream home project. For instance, even though this site is on the market, it isn't suitable. It's in an isolated rural location where there are few services and no public transport. So in planning terms, it wouldn't be regarded as being sustainably located for a new home. In addition, restrictive countryside protection policies apply, which prevent new houses other than in very limited circumstances

Left: Pauline and Frank Mace built their 388m² Frame Technologies (www.frametechnologies.co.uk) home on a 1.5-acre site. The couple bought two plots, one with existing planning consent, and the adjoining field, ensuring no development could take place on the site and interrupt the beautiful views from their home

FRAME TECHNOLOGIES

can be fierce, so if you see something that looks like it ticks all the right boxes, be ready to act fast.

Get out and explore: Online searches are efficient and convenient, but if you want to be first in the queue, nothing beats exploring an area in person. You can get a better sense of opportunities and, if you find something interesting, don't be shy. Ask locals about available land or drop letters through doors to express your interest.

Spread the word: You never know who might have a lead on the perfect plot, so let everyone know you're looking. Talk to friends, family, and even casual acquaintances. Consider putting up adverts in local shops, notice boards, or on social media to cast a wider net.

Consider land you already own: Sometimes, the perfect plot is right under your nose. If your house is in desperate need of renovation or if you own a large garden, it might be more suitable as a building plot. Provided the planning department will support your proposals, it might be far quicker and easier to build on something you already own.

Consider larger sites: Don't limit yourself to single plots. Larger sites might be available at a lower cost per plot and could be shared with other self builders. Councils must maintain lists of brownfield sites suitable for redevelopment, so, if you've signed up to the self build register, don't be afraid of asking them to introduce the group to any brownfield opportunities.

Consider custom build sites: To increase the supply of building plots, councils are obligating large developers to offer part of their sites for self build. This is known as custom build and provides a middle ground between a traditional self build and buying a ready-made home. Custom build plots are usually a lower risk project, as developers handle the planning and infrastructure, making the process easier.

Network with builders and professionals: Building relationships with those in the self build industry can lead to insider information on plots coming to market. Architects, planners, project managers and self build companies, often know of development opportunities before they're publicly listed. Visit Build It Live where you'll find the best companies in the sector and can ask them for referrals to upcoming opportunities.

Attend property auctions: These events aren't just for buying old, dilapidated houses. They can also be a great source for building plots. Just be sure to do your due diligence by studying the auction pack and working out what your maximum bid should be. Remember, the fall of the hammer represents exchange of contracts so be certain about what you're doing before making any bids.

Successful plot hunting

Finding the right place to build your dream home takes time, effort, and focus to identify the best opportunities out there. By taking a proactive approach and using a mix of these tactics, you can greatly increase your chances of finding the perfect plot. By knowing what you're looking for and keeping an open mind, your ideal plot might be closer than you think.

FINDING & BUYING A PLOT

GET SERIOUS Finding a plot requires focus and persistence. Treat searching for land like an obsession, and be prepared to invest the necessary time to find and explore all possibilities.

KNOW YOUR BUDGET Before you start searching for somewhere to develop, ensure your budget aligns with market realities. If it doesn't, you should adjust your plans or raise more capital.

HAVE A STRATEGY Do your research in order to understand the competitive market, and focus your attention on areas where you have the best chance of success. Be ready to compromise.

UNDERSTAND PLANNING POLICY Not all land is developable, so understand the planning rules in the area so you'll quickly be able to identify what's a realistic opportunity, and what's not.

FIND OFF-MARKET OPPORTUNITIES Avoid the competition by exploring off-market opportunities and consider plots others might overlook.

BE DECISIVE Don't lose out on a great opportunity by hesitating. Upskill your knowledge so you can act decisively when the right plot comes along.

ASSESS PLOT POTENTIAL Before committing, ensure the plot meets essential criteria like planning approval, access, and mains services.

LEARN TO VALUE LAND By knowing the valuation process you'll be less likely to overpay.

SEEK PROFESSIONAL HELP Don't hesitate to consult experts who'll guide you through the complex process of buying and developing a plot.

PLOTBROWSER BUILD IT'S PLOT-FINDING TOOL

PLOTBROWSER.COM is a dedicated search tool for finding building plots, and properties to renovate. The website is free to access and curates hundreds of self build plots, conversion and home renovation opportunities across the UK. PlotBrowser also provides useful articles and guides about land finding, helping self builders to find their perfect building plot. **Don't miss pages 177-186 in this special edition of Build It magazine for a selection of plots for sale.**

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Discover the benefits of having some of the typical self build hurdles taken care of by a specialist developer

WHAT IS CUSTOM BUILD?

Above: Each site at the Meldrum House Estate Development is sold as a fully serviced plot and buyers have full control over their new home's size, layout, interior fit-out and specification (cairnrowan custom homes.com)

Custom build is a route to creating your own bespoke home, but with some of the work already taken care of. Where self build projects involve sourcing a plot, applying for the relevant permissions to develop it and arranging services and access, the custom building process usually involves multi-plot sites bought and prepared by an enabling company or developer. The standout benefit is the enabler secures planning, installs key infrastructure and utilities, and, in some cases, prepares the site with foundations or your bespoke home's structural shell.

Drawing a clear line between custom and self build can be difficult. Typically, a custom build scheme will follow either a serviced plot approach (utilities, access and planning in place, with foundations to suit your final design included in the sale) or a customisable home model (where you tailor a pre-designed house). Here are eight benefits to the custom build approach:

1 SPECIALISTS WHO HAVE DONE IT ALL BEFORE

Building your own property can be a big learning experience with hurdles to overcome throughout the process. So knowing you're working with a specialist company that has experience in successfully creating bespoke custom build homes will take a large chunk of the stress out of your project.

Right: Surrounded by green spaces in the Lake District National Park, Wellbank allows you to either design and build your own home or have it built for you, with expert support every step of the way. There are 17 plots now available in Phase Two (wellbank park.co.uk)

2 PLANNING PERMISSION SECURED

Getting building consent from the local authority can be a protracted process, so arguably the biggest benefit of the custom build route is that someone has already taken care of securing planning permission.

3 GENEROUS PLOT SIZES

Many custom build plots are bigger than a standard developer site. The minimum area of land offered on the Meldrum House Estate Development of 42 new custom build properties in Aberdeenshire by Cairnrowan homes, for instance, is half an acre.

4 STUNNING COUNTRYSIDE LOCATIONS

If you want to create a new home in a picturesque rural setting, many custom build developments are situated on the edges of villages in idyllic spots.

5 CHOOSE HOW HANDS-ON YOU WANT TO BE

Custom build provides options in terms of how involved you are in the project. You can get fully hands-on with the design and build if you'd like to, or you can choose a turnkey route where the company manages everything on your behalf, handing you the keys when it's ready.

6 BESPOKE DESIGNS

Custom build developers don't dictate the look and finish of your home like large-scale house builders do – you'll work alongside the company to get the result you want. There might be some parameters in place, such as regional style and positioning on the plot, but this is the case with the self build route, too.

7 ENERGY-EFFICIENT HOMES

If you're after a living environment that's comfortable year-round, with low running costs and minimal carbon emissions, working with a custom build developer is a great option. They will have the knowledge and resources to guarantee you get the result you want.

8 HIGH-SPEC RESULTS

Chances are, if you're looking to create a new home from scratch, you're after a high quality property. The custom build approach allows you to have full say over the products and finishes inside your new home.

THE FUTURE OF CUSTOM BUILD

JAMES BUCHANAN head of custom build at Oakwrights (oakwrights.co.uk), looks ahead to what homeowners can expect from the custom build route

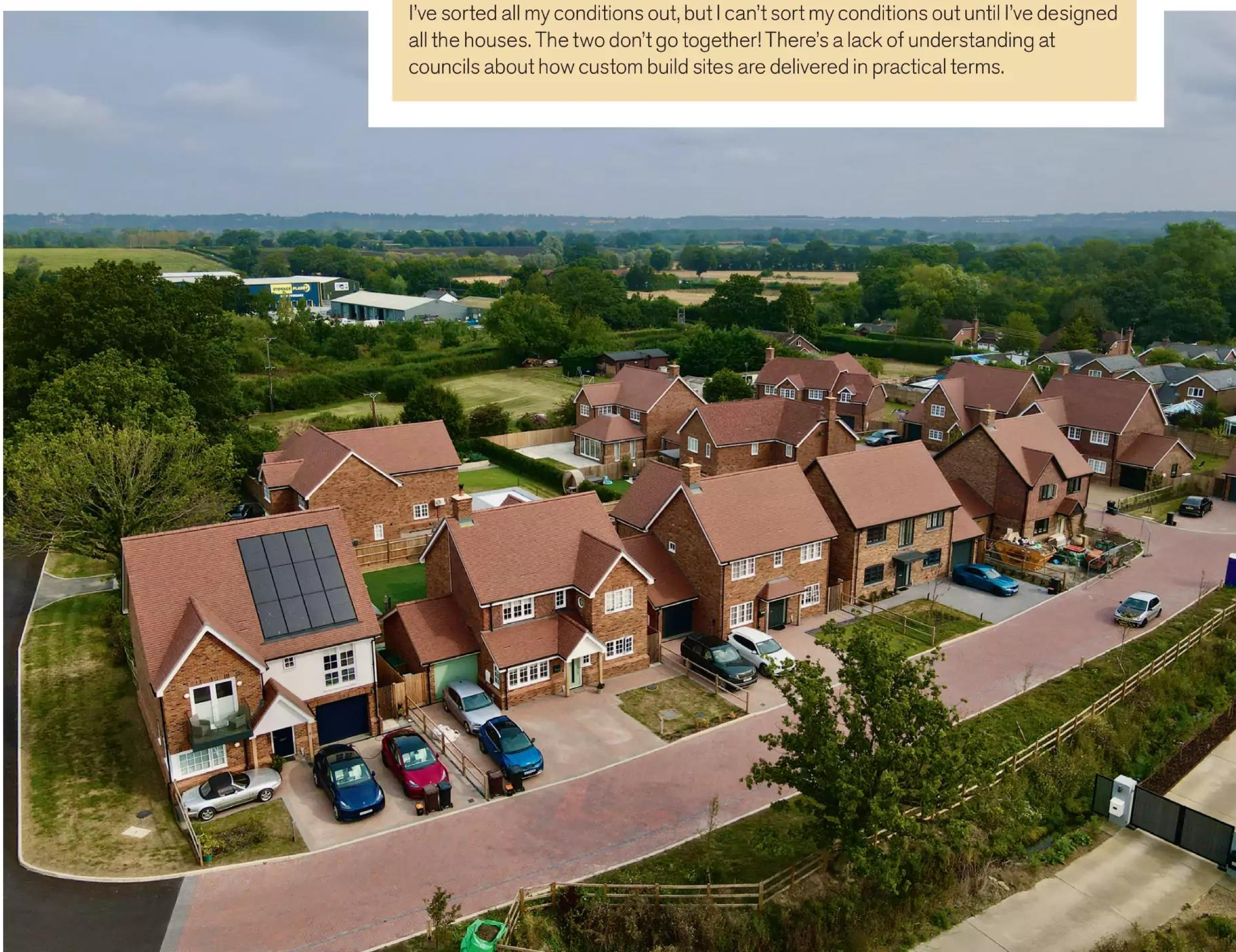
Q **With different routes to custom build, what is your definition?**
I see custom build as a way of delivering the buyer a bespoke home that meets their lifestyle needs, budget and has everything tailored to them. What I've seen a lot recently is companies finding loopholes to exploit custom and self build by offering a house where you get to pick the carpet and kitchen... but that doesn't provide the flexibility of a true custom build. And the government have tried to clamp down on that now by saying that to be true custom and self build, the end plot purchaser has to have significant design input into their home.

Q **What steps should the government take to support custom build?**
They could help with the finance side of things. A major downfall for us in the business financially is that we can't claim VAT back on any of the infrastructure put into the site for the roads and services etc. Ideally the government will make a process where companies offering true custom build could claim that back, so we wouldn't have to pass that cost on down the line to the plot buyers.

Q **What types of custom build will gain traction in coming years?**
I think it's going to be truly bespoke offerings, but with a cohesive feel across the housing site. I've seen some of the larger developers do big large-scale housing and then put a small element of custom build to the side of it, but these properties still look like the mass spec-built homes next door.

Looking ahead, I believe the most popular custom build route will be something between a dry shell and a turnkey. I'd love to see custom build open up to a larger audience and bring the average age demographic of self builders down.

Q **What hurdles for custom build would you like to see change?**
It would be good for local authorities' understanding of how custom build sites are delivered to be better. At the moment, for instance, we have a development of six houses where it was very clear on the planning application that this is for custom build plots, but the planning conditions attached to it are written in a way that makes custom build difficult. They're telling me I can't discharge a planning condition until I've sorted all my conditions out, but I can't sort my conditions out until I've designed all the houses. The two don't go together! There's a lack of understanding at councils about how custom build sites are delivered in practical terms.



Right: The Langton Gardens development by Clarendon Homes won the Best Custom Build Project or Model category at the last Build It Awards (clarendon homes.co.uk)

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GUIDE TO

Self build insurance & warranties

Protect your new home while you're building it and into the future with this expert guide from **Jake Fitness**, team leader at Self-Build Zone

Building your own home is a significant financial investment, often costing £100,000s. And while it's easy to get caught up in design choices and the desire to win planning, many overlook site insurance and warranties. These essential protections are frequently left off the checklist, exposing self builders to unexpected risks and costly setbacks. You wouldn't drive a car without insurance, so why would you build your house without it? Site insurance should be right up the list of priorities in your budget!

What is self build insurance?

Self build site insurance is a vital safeguard. Creating a bespoke new home demands time, dedication and substantial financial commitment, which is why it's imperative to secure insurance for your project from the moment you acquire the plot.

A self build site insurance policy covers new construction work, existing structures and the entire site. A good policy cover checklist can be broken down as follows:

- **Public & employers' liability**
- **Building works & materials**
- **Site huts & temporary structures**
- **Plant, tools & equipment**
- **Existing structures**
- **Personal accident cover**

Won't my builder have the necessary cover?

Your builder might say they're insured, but this often only covers limited public liability, protecting them if they cause harm through negligence. It won't cover wider site risks or your own liability, leaving you potentially unprotected.

How much does site insurance cost?

Prices vary, but you should expect to pay between 0.5% and 1% of the overall build cost. That's a small fraction of your total spend in return for confidence that any hiccups along the way are covered.

Why do I need a structural warranty?

Building a new home can be complex and defects in quality may not appear until many years later. A structural warranty covers design, materials or workmanship issues (including drainage and waterproofing) for 10-12 years after completion. These faults can be expensive and may require major repairs or rebuilding. A structural warranty protects you from such costs and is crucial if you need a mortgage. It also supports future resale, as the warranty transfers to the next owner.

CHECKLIST

What to look for in a structural warranty provider

- ✓ 10-year new build warranty, backed by financially secure 'A' Rated insurers
- ✓ No membership or registration fees required
- ✓ Accepted by the majority of lenders in the UK and an associate of UK Finance
- ✓ Fast quotation turnaround
- ✓ Quick response from a professional, nationwide technical auditing/survey service
- ✓ Flexible payment method
- ✓ Full risk transfer in years three to 10 of cover

JAKE FITNESS is the team leader at Self-Build Zone, which offers a comprehensive range of specialist self build, renovation, extension and site insurance cover, and self build warranties. For more information about self build warranties and insurance, visit **www.selfbuildzone.com** or call **0345 230 9874**.

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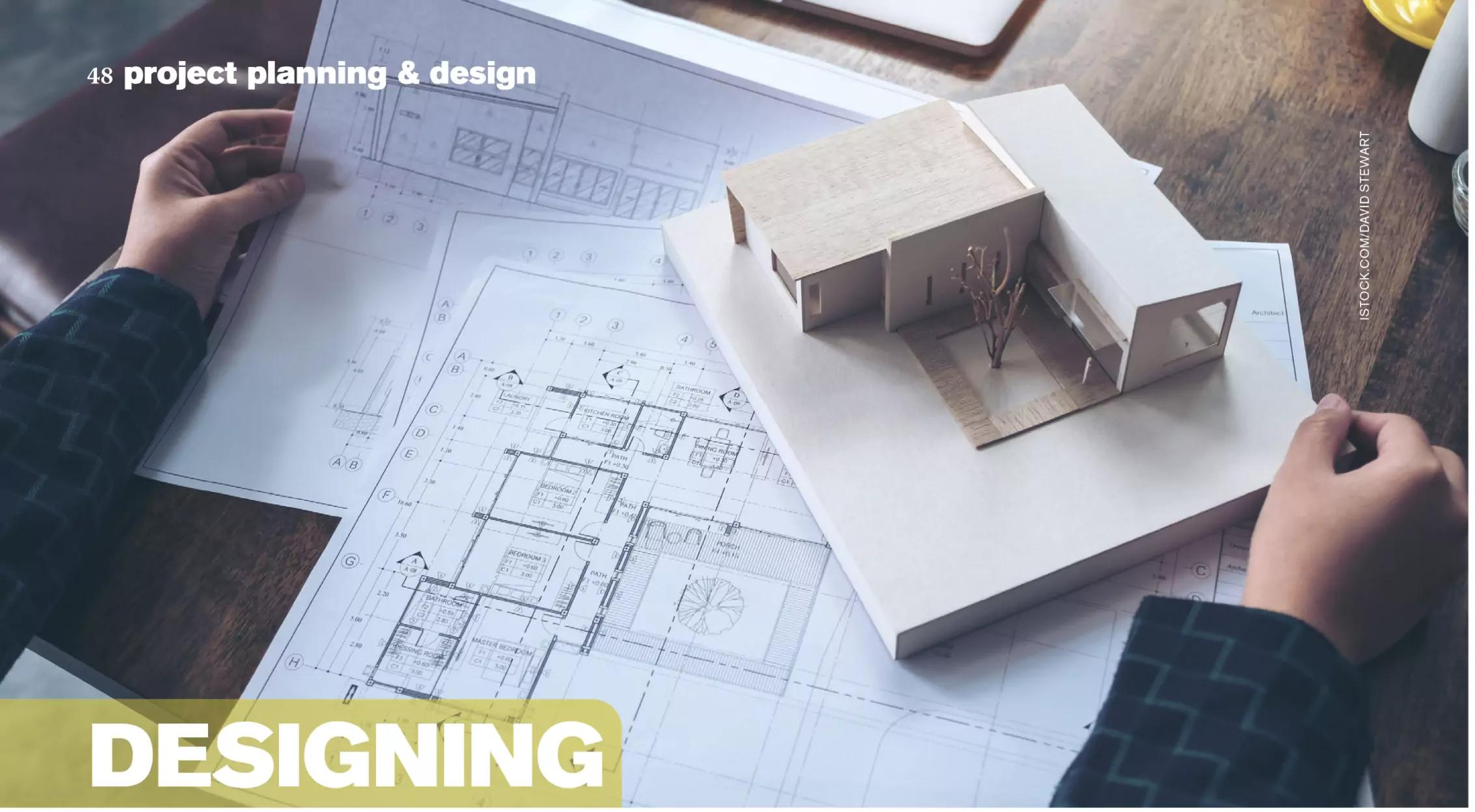
Government rules are put in place to make your home safe and comfortable to live in. Julian Owen explores what they mean and how they impact your project


ISTOCK.COM/DAVID STEWART

DESIGNING YOUR HOME

Your dream home will take shape on paper before it does in real life, but how can you make sure you're getting the best design for your needs, style preferences and project budget? **Emily Batesmith** looks at how to get the most out of the design phase

If you've been planning your self build for a while, you might have an idea in mind for what style or look of architecture you're after. But have you mapped out how the daily flow of your household impacts on how you'll use your living spaces? Have you considered how light moves across your plot and where you want daylight at different points of the day? Do you know whether those wow features you have in mind are within your budget?

Home design is much more than picking out what it will look like – and working with a professional will help you get the most out of your floor plan and realise the performance you want. So how does the process work and what should you know before approaching a house designer?

When should you involve a professional designer?

The answer is as soon as possible, perhaps even before you find your self build plot. "Although officially architects only design houses, they have a wealth of knowledge with regards to site choices, local planning regulations, structural advice and building materials," says Michael Howe, director at 2020 Architects. "If an architectural firm is involved from the very beginning of your self build project, they can give advice on sites you are interested in, from how likely planning is to be approved, right through to how to position your home on the site to make the most of the surrounding views or access to sunlight."

Your choice of designer will be influenced by the kind of project you have in mind, particularly when it comes to construction method. For instance, some oak frame suppliers have in-house designers that specialise in their particular structural system. It'll also be dictated by your choice of project route – turnkey package home suppliers will include the design within their service. These two examples don't necessarily involve an external architect.

The titles 'architect' and 'chartered architectural technologist' are protected by law and should only be used by those with the correct accreditations (you can check this online). This is not the case for professionals calling themselves 'architectural designers', which isn't a regulated title. That's not to say such professionals aren't also excellent at what they do, but it's worth researching what qualifications they have and see recent projects.

How to develop a design brief

You don't need to have a particular vision in mind when approaching a home designer. Every household has unique living requirements and preferences, so you'll work with your designer to explore what it is that you need from your self build now and how that could change in the future. "We can start the journey with you from as little as the basics of having land and a project budget," says Henry Duncan, design manager/director at Greenheart Sustainable Construction.

Above: This impressive visual of a custom build home at Grove Park in Kent by Quinn Homes provides the homeowner a good idea of what their new house will look like

Your chosen designer will chat through your lifestyle, who lives in your house, how you like to use your space and how long you plan on being in the house (if the answer is forever, then future proofing will mean you can adapt spaces as your needs change). They'll consider how many rooms you need, what areas could benefit from open plan or closed off spaces and whether you could incorporate a bit of both with sliding doors etc. Your furniture and what you want in each of the different the rooms will play a role, too – for example, if you want a super king-size bed then your bedroom will need to be bigger than the standard size. Don't forget storage and different ways to reduce visual clutter.

Think about what features you like visually. "Getting your personal preferences across can be a challenge if you rely on listing or discussing them," says Julian Owen, Build It expert and managing director/founder of Julian Owen Associates. "The old cliche that a picture says a thousand words is apt here; a scrapbook of photos and drawings can give a very good idea of your individual tastes and likes. It's just as important to include a few buildings or details you dislike for features to avoid."

They'll also consider your plot (views, light and passive solar gains) and any potential planning restrictions, such as house size. "One of the other key pieces of information is budget," says Michael. "Building a brand new home can be expensive, especially with materials and labour costs rising as they have been, but if you have a realistic self build budget, it helps inform the design of your home." All these different details will help a designer to map out room sizes, floor plan flow, window and door positioning, along with style and architectural detailing.

How to get good results

It's important to work with a designer that matches the kind of end result you're looking for – there's no point in working with a professional who specialises in modern builds if you're after a new home with traditional appeal.

"Research your design aspirations, identify the different features you like and dislike and make that clear to the designer from the outset," says Nick Blunt, head of design at WeberHaus UK. "Sit down face to face with your house designer. This way, you will both get much more out of the initial meeting, rather than over the phone. Being together also means you'll be able to refer to the exact spaces that you're meeting in, for example when looking at specific room sizes and the scale of different features."

Make sure you're hiring a designer who will really listen to you and work to your specific requirements. "The whole point of doing a self build project is that you didn't want an off-the-shelf home, so make sure you create one that is tailored to you and your lifestyle," says Michael.

On the flip side, it's important to listen to your designer's suggestions – they are the experts and will look at your ideas with a fresh set of eyes backed by knowledge and possible reasoning that you won't have considered. If they're proposing something that doesn't quite match up to what you had in mind, be open to discussing it.

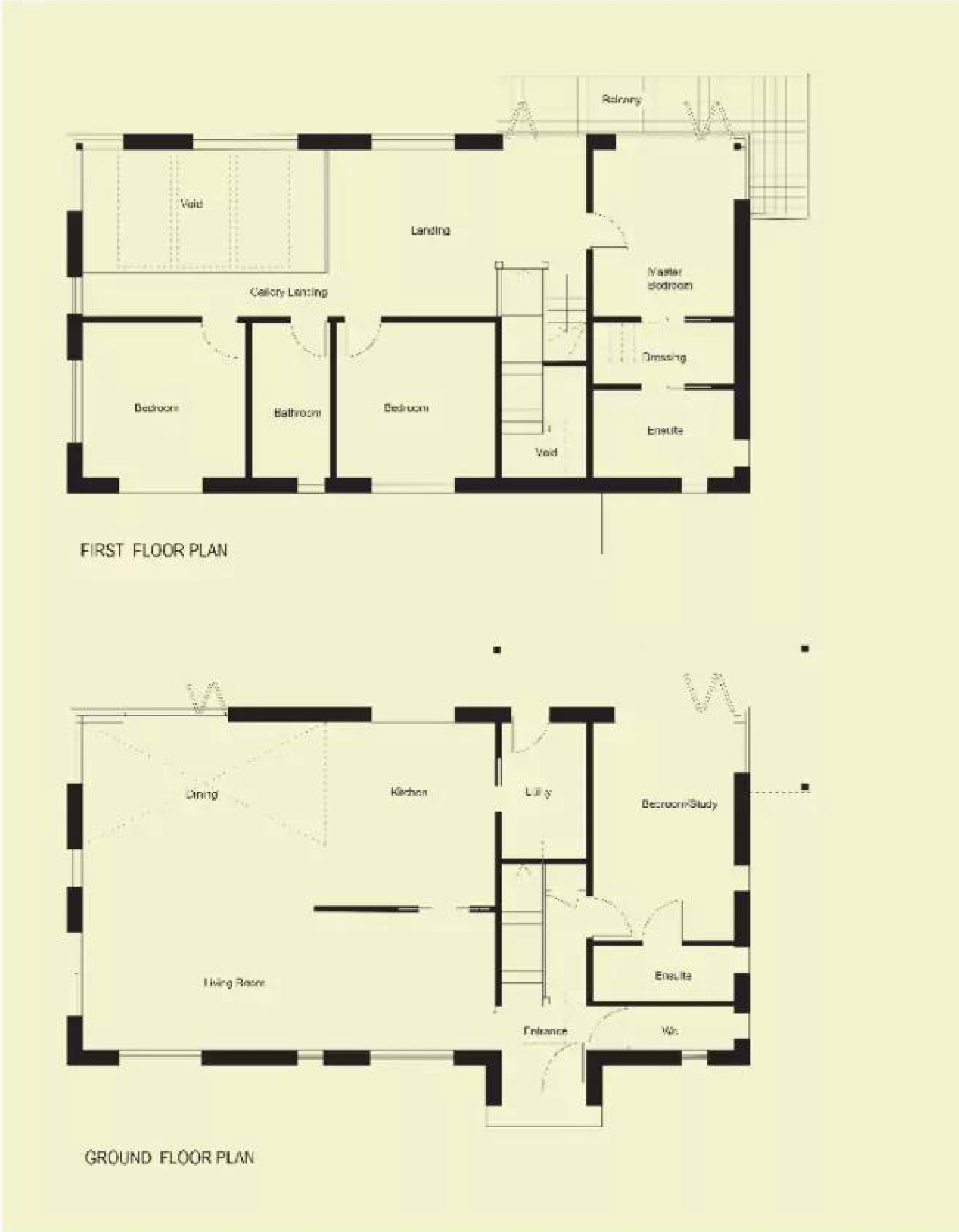
How long does the process take?

Timings will of course vary depending on complexity and the type of design route you're going for. It'll

MATTHEW SMITH

Below: This high -performance timber frame build, designed by Cocoon Architects, takes inspiration from traditional Suffolk long houses, with an elongated form. To the rear of the house, a single-storey zone with wide spans of glazed doors help connect the home to its rural surroundings

DAVID STEWART



Left: Build It reader Vincent Denecker worked closely with Lapd Architects to develop the design for his contemporary self build home in Oxfordshire

be quicker to tweak the plans of a scheme taken from a package home supplier's tried-and-tested pattern book of self build houses than to start from scratch on a project in a protected area, while also aiming for Passivhaus certification.

"A few weeks would be enough to look at the key concepts and then a couple of months from that could get something fully formed and into planning – but it's best not to rush the process," says Henry. "You're probably chomping at the bit to get your project moving along, and there's a tendency to rush things through to planning, but it's a big thing, so take your time. You can be broadly pleased with the design and then quite late in the process a little adjustment will land that opens it all up and makes everything work."

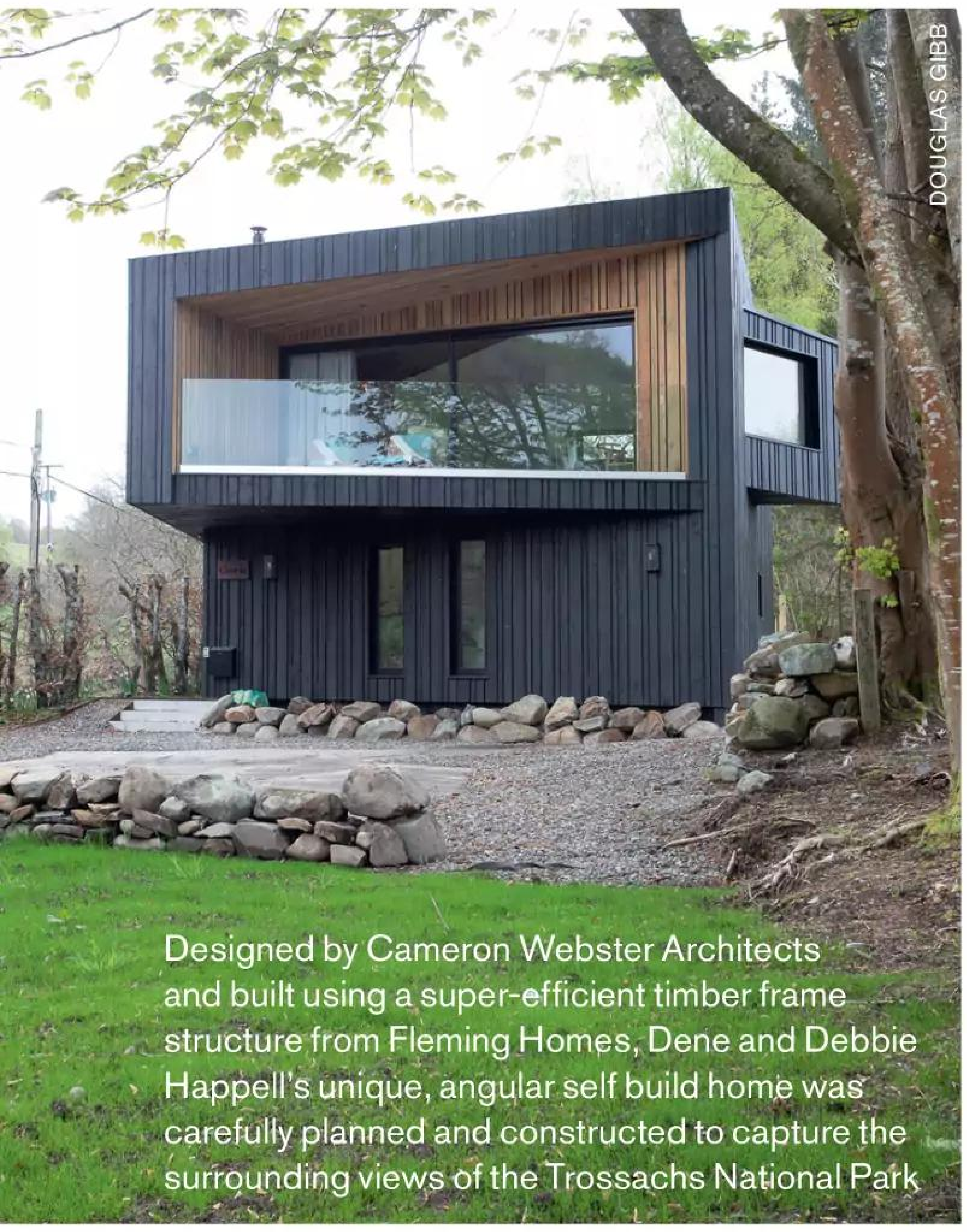
CONCEPT VS TECHNICAL DESIGN

CONCEPT DESIGN

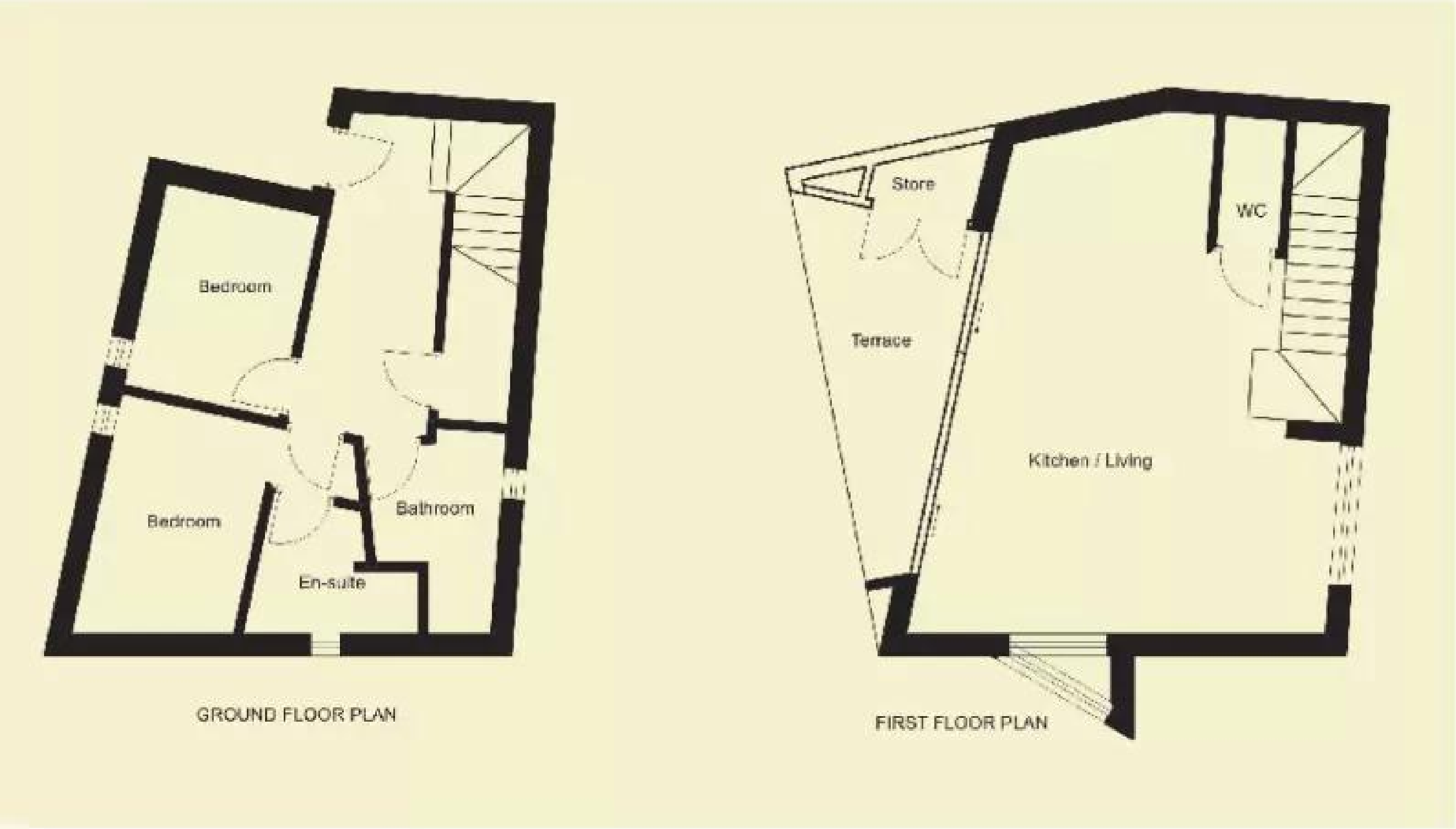
The sketch design phase, building up towards a design that's suitable for submitting the planning application.

TECHNICAL DESIGN

The post-planning design. All the detail has been worked out, drawn up and put into construction drawings for your for your Building Regulations application and for builders and trades to work from.


DOUGLAS GIBB

Designed by Cameron Webster Architects and built using a super-efficient timber frame structure from Fleming Homes, Dene and Debbie Happell's unique, angular self build home was carefully planned and constructed to capture the surrounding views of the Trossachs National Park



What does the design process cost?

In a similar vein to estimating the length of the design phase, each project is unique and so design costs will vary. Of course, different house designers will have different rates that they charge for their time, but the same rules ring true as goes for the products you put into your home – higher quality tends to cost more.

It's useful to understand how exactly your designer charges. For instance, some architects will quote a fixed fee, others will charge by the hour and some will charge a percentage of the project costs – and they might charge differently for different stages of the design process. You should always aim to get a full breakdown of what their fees actually include – you might be surprised at the different elements that are needed to take your home from a vision to ready to build. This includes outline proposals, planning submission, technical drawings, services layout, pre-construction house plans etc.

Design and build suppliers tend to offer this phase at a lower rate than bringing an independent architect in, as it's usually packaged into costs alongside construction.

CONTACTS

2020 Architects 028 276 67999 www.2020architects.co.uk **Cameron Webster Architects** 01413 309898 www.cameronwebster.com **Cocoon Architects** 01353 611721 www.cocoonarchitects.co.uk **Fleming Homes** 01361 310454 www.fleminghomes.co.uk **Greenheart Sustainable Construction** 0117 942 9717 www.greenheartuk.com **Julian Owen Associates** 0115 922 9831 www.julianowen.co.uk **Lapd Architects** 01865 407722 www.lapdarchitects.co.uk **Quinn Homes** 01227 831212 www.quinn-homes.com **WeberHaus** 01233 802026 www.weberhaus.co.uk

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JIM STEPHENSON

BEGINNER'S GUIDE

BUILDING AN ECO HOME

Set your self build sustainability agenda with our advice on the key elements for designing a low-impact, energy-efficient home

ORIGINAL WORDS NIGEL GRIFFITHS & LINDSEY BLAIR

Creating an eco home involves a few key considerations: prioritising health and wellbeing, using low-impact materials, maximising energy and water efficiency, and incorporating sustainable drainage to manage rainwater responsibly.

In each case, it's important to take care when it comes to the use of metrics. A product designed to deliver low energy in use might involve expending a huge amount of energy to manufacture. This embodied impact is often ignored. It might also generate pollution or use up finite resources. It can be difficult to unlock the wider impact of what, on the face of things, feels like a sustainable choice.

Healthy homes

Building a house is first and foremost about the people who inhabit it. So, always begin with health and wellbeing when making decisions on your project. A good starting point is to avoid materials that give off toxic fumes, such as volatile organic compounds (VOCs).

Whatever eco standard you're building to, be sure the property benefits from plenty of fresh air. There's no point hermetically sealing your house in the name of energy efficiency and then having to live with poor indoor air quality because there's insufficient ventilation.

Creating a healthy environment isn't just about avoiding pollution. Mental health is just as important – our homes are where we spend the majority of our lives, and for those of us who work from them, potentially nearly all our time. So aim to maximise ceiling heights and natural daylight as there's good evidence that this makes a positive contribution to good mental health.

Beauty matters, too. If you can make your home attractive inside, then you'll find it relaxing and uplifting to live there. If you can make it appealing on the outside, too, then it will enhance the neighbourhood and make life better for others. Plus, it's more likely to be conserved and enjoyed by future owners, rather than knocked down and replaced (using up additional resources).

Don't forget the importance of outdoor space in terms of living a healthy lifestyle, both mentally and physically. Anyone who grows even just a few herbs and vegetables will tell you how important this is to them.

Low-impact materials

The biggest environmental impact from building a new home comes not from running it, but from the construction process. For many of you, this will be the largest single project of your lives. It's a good idea to focus on the materials that go into the structural fabric and do what you can to deliver positive results for your lifestyle, health and the environment.

There are some very low-impact construction methods – such as straw bale, cob and hemp – but these aren't for everyone. A low-impact home, with low embodied energy and carbon, can still be achieved by making tweaks to standard build processes and materials. For example, many self builders will opt for timber frame, as it is

Above: Created by Studio Bark (www.studiobark.co.uk) for a young family, this five-bedroom home meets their aspirations for off-grid living. It features a large solar array twinned with high-capacity batteries and a ground source heat pump, with a Midas biofuel generator that provides backup power in the cloudier months

Right: This project by Scenario Architecture (www.scenarioarchitecture.com) features extensive insulation, an air source heat pump and solar PV. It also has a wow-factor atrium staircase with internal courtyard-style planting, plus a new mature tree as part of the rear landscaping to protect against overheating

DUG WILDERS

HEM Architects' (www.hemarchitects.co.uk) Sort Trae Passivhaus project has a heating demand of just 19kWh/m²/yr and an airtightness rating of 0.54 ach. A collaboration between the homeowner, HEM Architects and Marc Medland, the property features triple-glazed alu-clad windows and doors from Norrsken (www.norrsken.co.uk) and efficient rooflights from Fakro (www.fakro.co.uk)

SHOULD I BUILD A PASSIVHAUS?

A Passivhaus is a highly insulated, airtight building that uses minimal energy. It relies on passive heat sources, such as sunlight, occupants, household appliances, and heat recovery from mechanical ventilation, to create a consistent and comfortable indoor environment.

Beyond exceptional energy efficiency, Passivhaus buildings offer additional benefits, including lower running costs and increased building longevity. The mechanical ventilation system will also help to regulate indoor humidity, reducing the risk of damp and mould developing.

However, it's important to consider whether this approach is suitable for your project. Self building to the Passivhaus standard generally involves higher upfront costs compared to conventional construction. Ensuring you have adequate funding is crucial – without it, you risk compromising the quality and value of your energy-efficient upgrades.

It's also worth noting that Passivhaus certification does not address all aspects of sustainable building. Some key considerations such as embodied energy, water efficiency, and a site's biodiversity all fall outside of its scope, yet remain vital for a truly eco construction.

Finally, the availability of skilled designers and contractors experienced in the Passivhaus standard can impact your project. While industry expertise is growing, it's important to confirm access to knowledgeable professionals early in your planning process.

inherently sustainable and allows for maximum choice of sustainable insulation materials. Timber also locks up CO2 in a building (as carbohydrate). So, with careful specification, it may even be possible to claim that a building is carbon-negative in construction.

People who wish to build sustainably prefer natural materials and tend to avoid plastics. Think carefully before saving a few pounds by putting in polyisocyanurate insulation. There's no need to use oil-derived plastics as there are plenty of low-impact materials available, ranging from wood fibre to mineral wool.

Heating & hot water

There has been huge focus on how we provide our space heating, given the move away from fossil fuels towards electrification of heat. Really, this focus should be shifted to existing buildings rather than new, because if you're building a home with very low heat demand, it frankly makes little difference how you heat it.

For that residual demand, new builders are of course encouraged to use heat pumps and these will certainly be lower carbon in use than gas boilers, thanks to the rapid decarbonisation of the electricity grid.

Perhaps more importantly, while our need for space heating has fallen, so the demand for hot water has risen (we take more baths and showers than we used to). This means domestic hot water (DHW) now has a greater impact than space heating in many new dwellings. So, use it efficiently and perhaps install solar water heating, which should cover around 50% of your hot water needs.

It would normally be more efficient (and cheaper) to provide hot water to the property using your heat pump rather than an electric immersion heater. While an air source heat pump (ASHP) will be slightly less efficient at supplying hot water than it is for space heating, it should still deliver at least two units of heat for DHW purposes for each unit of electricity input.

Water use

Despite all the focus on energy use and CO2 emissions, it's worth bearing in mind human settlement can only continue where there is an adequate supply of potable water (that which we use for drinking and washing). In some areas of the UK, this supply is under pressure.

Low-flush WCs are now mandatory, and low-flow taps and showers can also help to keep down potable water use. But there are much more significant water savings available through rainwater harvesting. These systems collect rainwater from the roof and store it in tanks for use in WC flushing, washing machines and outdoors (garden watering, car washing etc). As WC flushing is often the biggest culprit for water usage, you'll make handy savings in running costs with rainwater harvesting.

Sustainable drainage

Heavy rainfall is more common these days, and rainwater that used to soak into fields, gardens and lawns now falls on car parks, drives, roads, roofs and patios. From here, it is channelled directly to the drainage system, sometimes causing flooding downstream. Sustainable drainage systems (SuDS) have three main aims:

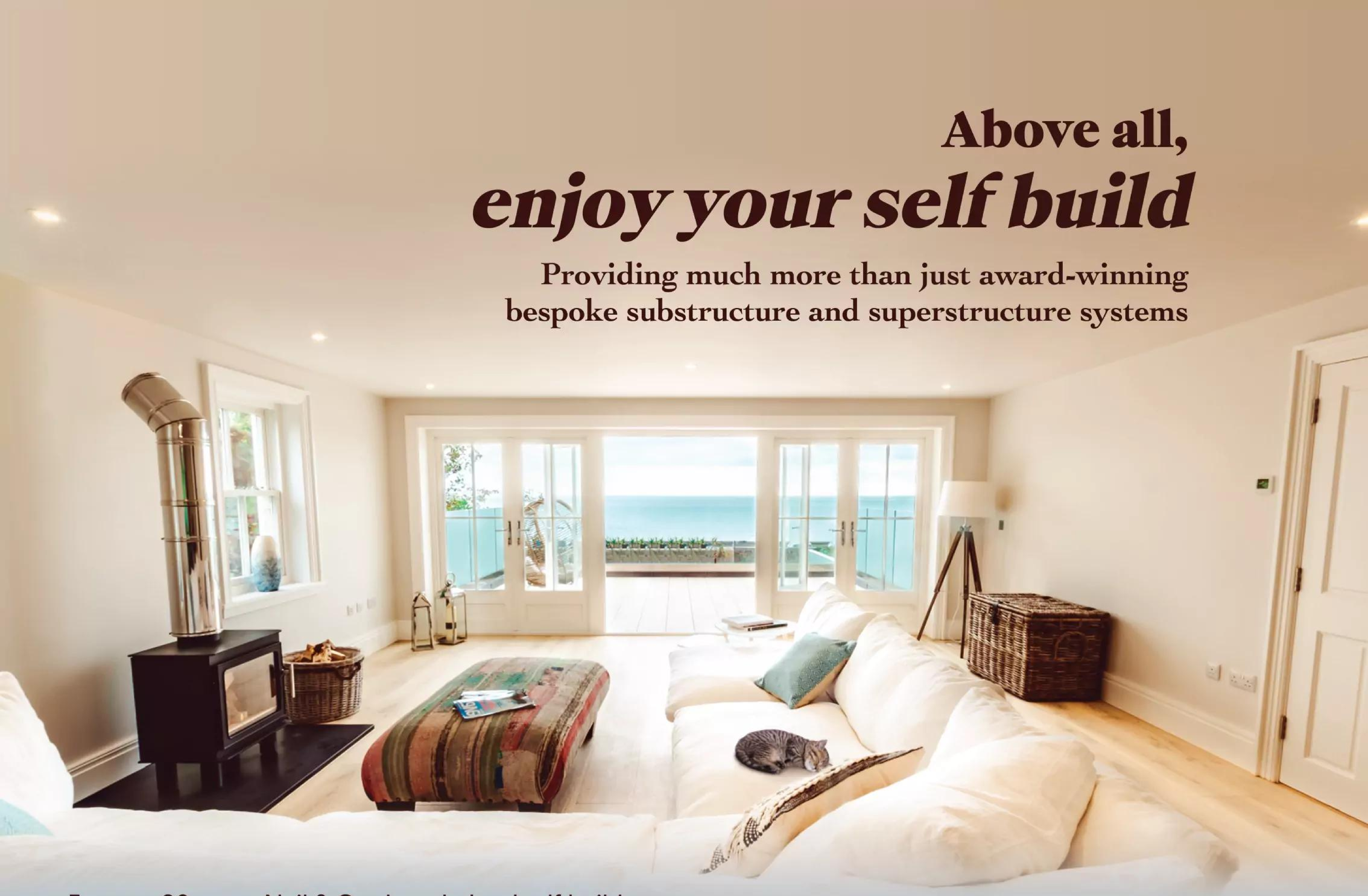
- **Reduce the chance of flooding by delaying the discharge of rainwater.**
- **Enhance water quality.**
- **Improve the environment and provide habitats for local wildlife.**

The burden on our country's rivers and floodplains can be reduced by using permeable surfaces wherever possible for hard landscaping – decks, patios, gravel etc – and installing soakaways to drain any solid paving.

Heavy rainfall can be slowed down by the use of holding ponds, and rainwater harvesting can make a small contribution. While larger developments are already required to have a SuDS strategy in place, self builders can adopt the same principles and do what they can to reduce flood risk and – if possible – to enhance ecology.

NIGEL GRIFFITHS

Nigel Griffiths specialises in sustainable construction and eco-renovation and is the author of the Haynes Eco House Manual. He advises UK government on retrofit programmes and inspects renewable heat installations on behalf of Ofgem. You can chat to Nigel at the Build It Live shows.



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STEP-BY-STEP GUIDE

BAUFRITZ

Baufritz beautifully adapted McLean Quinlan's (www.mcleanquinlan.com) bold design to fit their build system. The house was manufactured off site, with many of the natural custom-build elements, such as the vertical timber slats, being crafted by their in-house team

Package Homes

Whether you want to be hands-on or leave the work to the professionals, we follow the full process for this design and build route – from your first decisions through to move-in day – and explore the key choices you'll make along the way

WORDS ANNA-MARIE DESOUZA

Building your own home is one of life's most rewarding challenges – and for many, the package home route offers the ideal balance of freedom, structure and support. This step-by-step guide walks you through the full journey, from your first decisions around design and suppliers, through to key choices on construction and performance.

1 Is a package home for you?

Package homes give you the freedom to select how hands-on you want to be – from overseeing every detail to handing everything over to a turnkey supplier.

Many people are drawn to the predictability of fixed-cost packages, while others appreciate the ability to mix-and-match while still receiving expert guidance. Whatever your reason for exploring this route – better budget control, limited time or the desire for professional oversight – it's important to honestly assess your availability, confidence and how much risk you're willing to take on.

Designed by Meisterstueck Haus's own in-house architect to the owner's unique specification, this self build takes full advantage of its stunning location. The homeowner got to go and visit the factory to discuss their project with the design team to ensure they got the abode they wanted

2 Selecting a supplier

Your choice of provider will shape every aspect of your project – from the materials you build with to the overall design and sustainability.

Appointing a supplier that has a reputation for good customer support will minimise potential logistical issues while letting you access their knowledge and advice.

Before engaging a firm, it's worth doing some research into their past projects. Look beyond the pictures and ask to speak with previous customers to give you insight into how the company operates in real life.

Meeting the team in person to discuss your project is crucial, too – this way, you can gauge how well they understand your goals and whether your working styles align. Make sure they're clear about what's included in their service and how they handle responsibilities, particularly if you're not opting for a full turnkey build route.

3 Drawing up the scheme

Some providers will work with your own plans and/or the designer of your choice, while others have in-house designers who can create a fully bespoke scheme. Many can adapt pattern books of their pre-existing plans which can be a cost-effective route.

Timber building systems – including timber frame, structural insulated panels (SIPs) and oak – are the most popular. These offsite methods align well with the idea of agreeing a detailed spec, cost and schedule before you start production. But you'll also find suppliers who offer insulated concrete formwork (ICF) and traditional masonry. Each manufacturer's product is different, so it's best to look at several suppliers to see how their offerings align with your vision and budget.

4 The build route

If you're confident and experienced, a structural design and supply route offers maximum control. Your supplier delivers the technical plans and manufactures the kit, while you take full responsibility for on-site construction, hiring builders and managing the budget.

Want a bit more support? A shell build sees the supplier erect the weathertight structure – typically the insulated walls, roof, floors and sometimes the windows – before handing the rest over to you. This allows you to focus on the internal and external fit-out, while benefitting from their input during the most technically complex phase.

The design, supply and erect route goes a step further, with the supplier completing the design, technical drawings and assembling the structure on site. Once it's weathertight, you resume control of finishing trades.

Finally, turnkey is the most hands-off approach. Your supplier manages everything from design to completion. You'll still have to make early decisions on layout, spec and finishes, but they'll take care of the rest – handing you a ready-to-live-in bespoke home.

5 Finance & contracts

With your build route and supplier confirmed, attention turns to finance and contracts. Package homes can be easier to finance than traditional self builds, particularly if you're working with a recognised supplier and clear payment stages are in place. Your provider should always detail how and when payments are to be made, whether you're funding the build through savings and equity or using a specialist self build mortgage.

Make sure your contract fully outlines what is and isn't included in your package. Among the key areas to clarify are design, materials, assembly and project management responsibilities. A good contract will leave no room for surprises, outlining both parties' obligations at each stage.

6 The physical build

When starting construction, you'll be responsible for preliminaries, groundworks and foundations. Depending on your build route, this may be entirely in their hands, or you might be stepping in once the shell is complete.

If you're taking the reins from here, this is where your role becomes more active. You'll be coordinating follow-on trades, from electricians and plumbers to decorators and floor fitters. Having a good, detailed project plan and budget tracking system will help keep things on schedule.

The fit-out is also the stage that minor delays or design tweaks can have a significant knock-on effect. Weather, site access and materials availability might shift timelines, so it's important to allow for a little flexibility.

7 Completion

Reaching completion and sign-off is a milestone worth celebrating. On turnkey projects, you should expect your supplier to walk you through a formal handover of the finished house. This includes snagging (identifying and fixing minor defects), ensuring all Building Regs and certificates are signed off, and connecting the utilities. You'll also receive an operations manual, warranties for materials and systems, and guidance on maintenance.

If you're managing the interior fit-out, handover of the superstructure is your cue to start. Some suppliers offer a near dry shell finish, enabling immediate internal progress without waiting on windows, roofing or external finishes.

It's a good idea to document everything at handover – from meter readings to delivery notes – and keep a central record of guarantees and contacts. Once you're in, there may be a brief adjustment period, as systems settle in, and you learn the rhythms of your new home.

The Norris family chose Dan-Wood to create their dream timber frame home. It only took 10 weeks for the standard turnkey package and they were able to further enhance the energy efficiency by installing solar PV panels as an optional extra

EXPERT Q&A

SIMON ORRELLS
managing director at Frame Technologies, gives his view on making sustainable choices

Q How can self builders effectively incorporate sustainable materials into their package homes?

Most clients opting for closed panel, factory-insulated timber frame systems aim for ultra-low U-values and airtightness. This delivers energy-efficient homes, with one point of contact for the building fabric. Pre-insulated panels create long-lasting, sustainable houses that are cosy and efficient. Designed to deliver excellent thermal and airtightness properties, and manufactured in controlled environments, these systems guarantee performance. Closed panel timber frame packages can achieve U-values from 0.18 down to 0.09 W/m^2K.

Natural insulation is an option, too. For instance, we can install any insulation into our TechVantage system – such as sheep's wool, hemp or recycled paper.

Q How do package home suppliers help self builders make environmentally conscious decisions?

Our role is to advise on the best system to suit the client's design and thermal efficiency goals, based on individual specifications. We always recommend building to best value, not cheapest cost. Working on a bespoke basis, we consider energy performance, wall thickness, floor area, cost and the self builder's desired sustainability levels. Building to the highest levels of thermal efficiency and quality you can afford will stand you in good stead for the future.

Q What are the most common mistakes self builders make?

One mistake we see time and again is when clients fail to engage the package provider or timber frame manufacturer at the start of the project. Timber frame companies are often able to assist with design, meeting Building Regs, planning challenges and more – it's not just about supplying and manufacturing the timber frame. They can help you reach your efficiency goals.

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COMMON PROJECT MANAGEMENT MISTAKES

Managing your own project can be a rewarding yet high-pressure job. Mark Stevenson shares his expertise on how to run a successful build

Presiding over a building project is hard work and with so many moving parts, there's a lot that could go wrong. The key to success is effective project management. Provided you can avoid the following common mistakes, there's no reason why most self builders can't do it well.

Poor leadership

Building a house takes a whole team of people, with different skills, competencies and priorities. Managing the building process is a bit like herding cats and the project manager (PM) has to be an effective leader to ensure that everyone is playing their part. As a self managing self builder, it's understandable that you may lack confidence in your ability to lead a project – especially if you've never done it before. In these circumstances, priorities get confused and decision making becomes compromised. Losing control of your project risks delays to your schedule and extra costs.

While this all sounds quite serious, it doesn't mean that you aren't able manage your own project. Provided you understand the role and responsibilities of running things yourself and work with the appointed trades and professionals to understand what's needed, you can be an effective leader. Be prepared to listen, question what's going on and act when things aren't quite going to plan or when important decisions need to be made.

Lack of effective communication

Good communication is vital for the success of any construction project and self builds are no exception. We all have different standards and our own methods of conveying information– each with varying degrees of success.

The obvious answer is to be clear and unambiguous when talking to all the different trades. On building projects, there's no room for uncertainty and if you're a flowery communicator, keep this in check. It's essential that you understand that the responsibility for conveying information lies with the PM, so be prepared to flex your approach to suit the various individuals you will need to interact with. This basically means there's no point sending the bricky an email when WhatsApp is more likely to get through.

Being indecisive

Building a house involves thousands of decisions, from choosing materials to signing off designs and paying the bills. You'll have to make choices day in and day out.

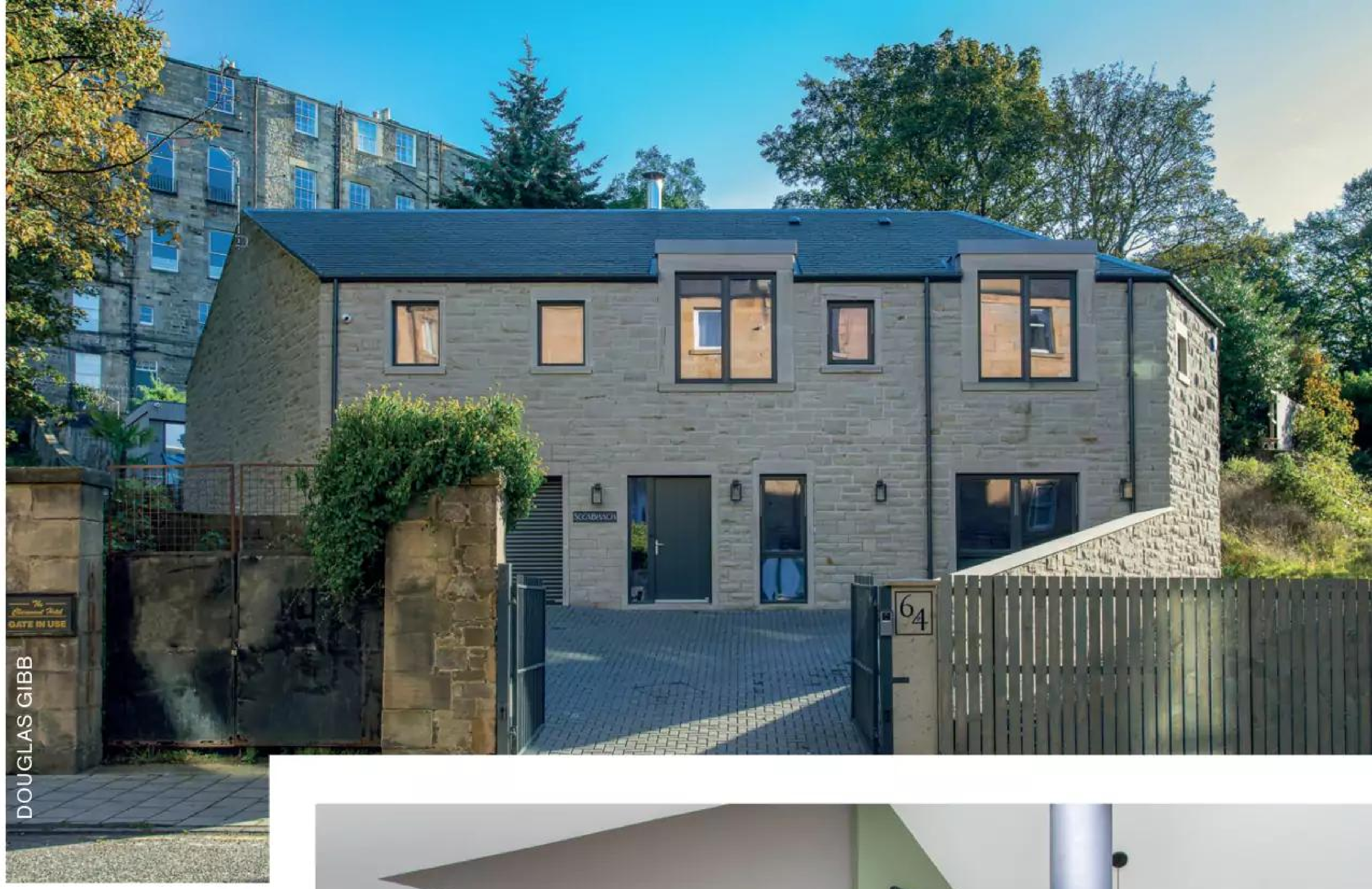
COLIN POOLE

Above: Chris and Juliana Beardsmore teamed up with their son Joe to help them project manage their build. Alongside bringing in subcontractors as and when necessary, they also were very hands on with doing the electrics, plumbing and plasterboarding

Right: Build it readers Andrew Laing and June Russell project managed their self build themselves, hiring contractors individually. Being present on site helped them hugely, as they could see where slippages could arise and respond to them quickly

Indecisive self builders will quickly run into a whole host of problems.

PMs must be able to consider the facts, analyse priorities, balance budgets and meet quality standards efficiently – while keeping the team motivated and moving in the right direction. This all sounds like a tall order, but provided you recognise the need for a decision and approach it in a timely and logical manner, canvasing opinion from the experts, most people will be much more effective than they realise.


DOUGLAS GIBB

Having a messy site

Making a living as a contractor or tradesperson is hard work and comes with plenty of risks that get in the way of earning a wage. As they say, time is money and for anyone working on a building project, the main goal is to finish the job to a high-quality standard as efficiently as possible.

Unfortunately, it's easy to forget this as a PM with lots to juggle, you can end up failing to give the contractors every chance of being successful. A poorly organised site is likely to discourage your trades from getting the job done. The solution is simple – be organised and keep a tidy environment ready for anyone that's coming to work. Be mindful that they need to make their money and help them be productive. By setting your site out well and helping the contractors conduct their work efficiently, in turn they'll be more responsive, obliging and likely to turn up on time.

WHO ELSE CAN PROJECT MANAGE?

ARCHITECTS/DESIGNERS These may agree to manage your build for a percentage of the overall build costs – but beware that there's little incentive to keep the budget down. Some may hand the job on to a contractor they trust and just act as an overseer – in this case both will make a profit from the arrangement. However, all of this can mean a hassle-free build process.

MAIN CONTRACTOR If you get a general builder to construct your home they will, by default, be project managing the process – a great option if they've come recommended or you've seen evidence of their good work. However, you will pay a premium for this route rather than employing trades yourself, and you'll have less direct control of the project.

PROJECT MANAGER Dedicated professionals who work on individual projects charge anywhere between 10-15% of the build cost to manage on your behalf. Although pricey, this can be a worthwhile alternative to giving up a good job to run a project, especially if you're not planning to use a main contractor or package build route.

PACKAGE BUILDERS The majority of package companies will take the shell to watertight, with you responsible for the foundations and the first and second fix, as well as any other jobs. For a fee most will take on the entire build if you wish.

Losing track

Building sites are fast-paced places with lots going on all at once. The PM has to deal with a multitude of questions and keep an eye on what's coming next in order to keep the build and everyone involved on schedule. With so much going on, an impressive sense of recall is needed to keep things moving.

For most of us, having a great memory isn't a choice so it's a good idea to develop the habit of writing things down or recording them in a way that makes sense to you from the outset. Use good old-fashioned tools like a site diary and checklists so you don't miss anything vital.

Being afraid to ask for help

Just because the PM is in charge, doesn't mean that they're the font of all knowledge and the leading expert in all construction matters (nor is this a requirement of the job, by any means). Even the most experienced individuals will have gaps in what they know and will need to consult other professionals at various points across both the design and planning stages, as well as throughout the construction and fit-out.

Inexperienced PMs often have insecurities that a lack of know-how will somehow undermine their authority. In these circumstances, the risk of assumption is heightened and with it things go wrong. Don't be afraid to ask questions and always give others the opportunity to demonstrate their brilliance.

Taking a confrontational approach

Building a house is a challenge and whether we like it or not, things will go wrong occasionally. More often this will be down to circumstances out of your control, or that of your contractors and suppliers. Speaking from experience, there's no point hurling stones at each other.

The best approach is to have a bit of empathy and when you're approached with a genuine problem, do your very best to figure out how you can help. This will mean being flexible but not to a degree that there will be long lasting implications for your build. Mostly, the problems will be time related and in the grand scheme of things, a few days here and there won't matter in the end.

So, be firm but fair and if problems are brewing, put the kettle on and talk through the issue calmly to find the best solution for everyone involved. If the problem's a big one, I find handing out some cake never hurts.

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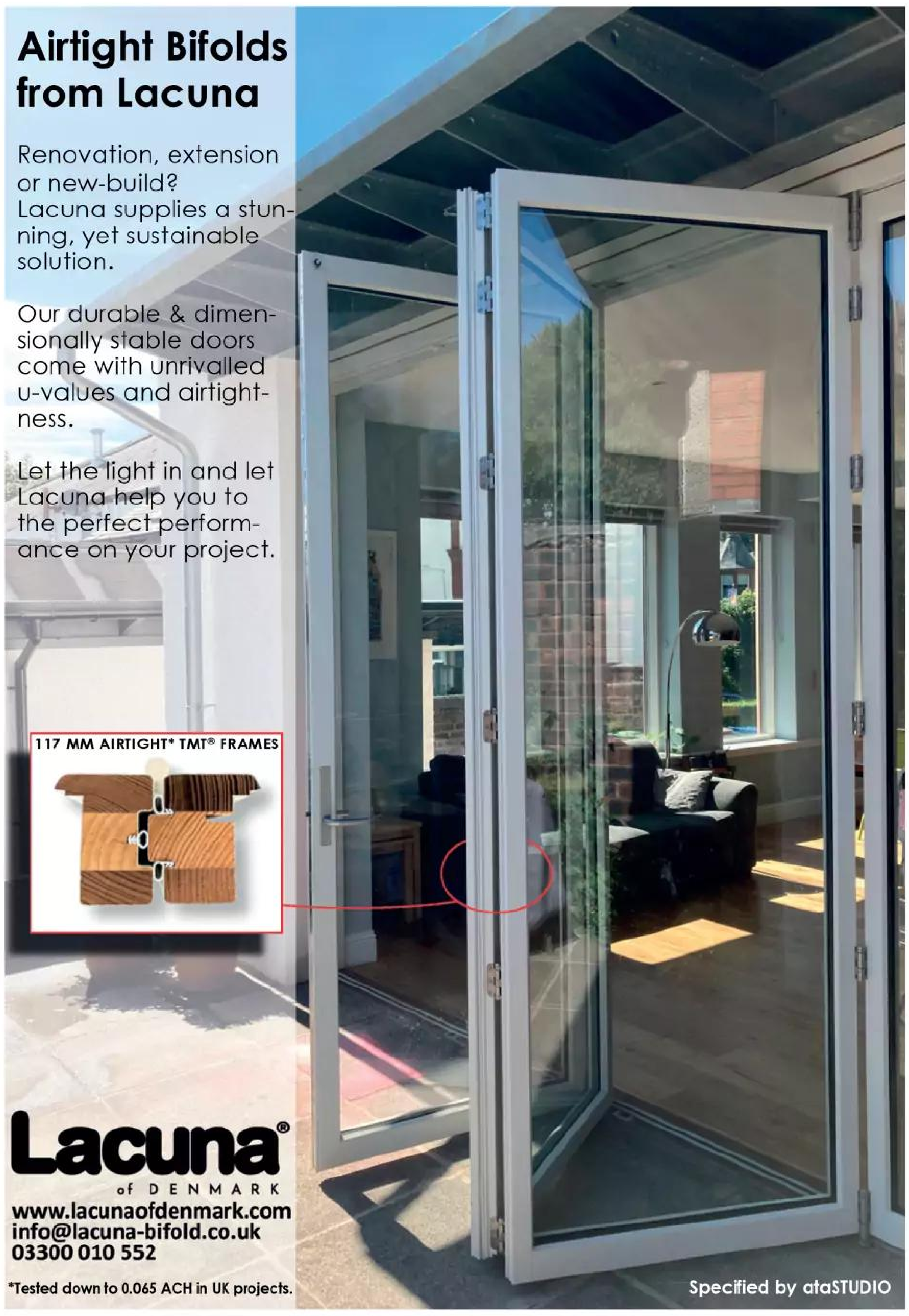

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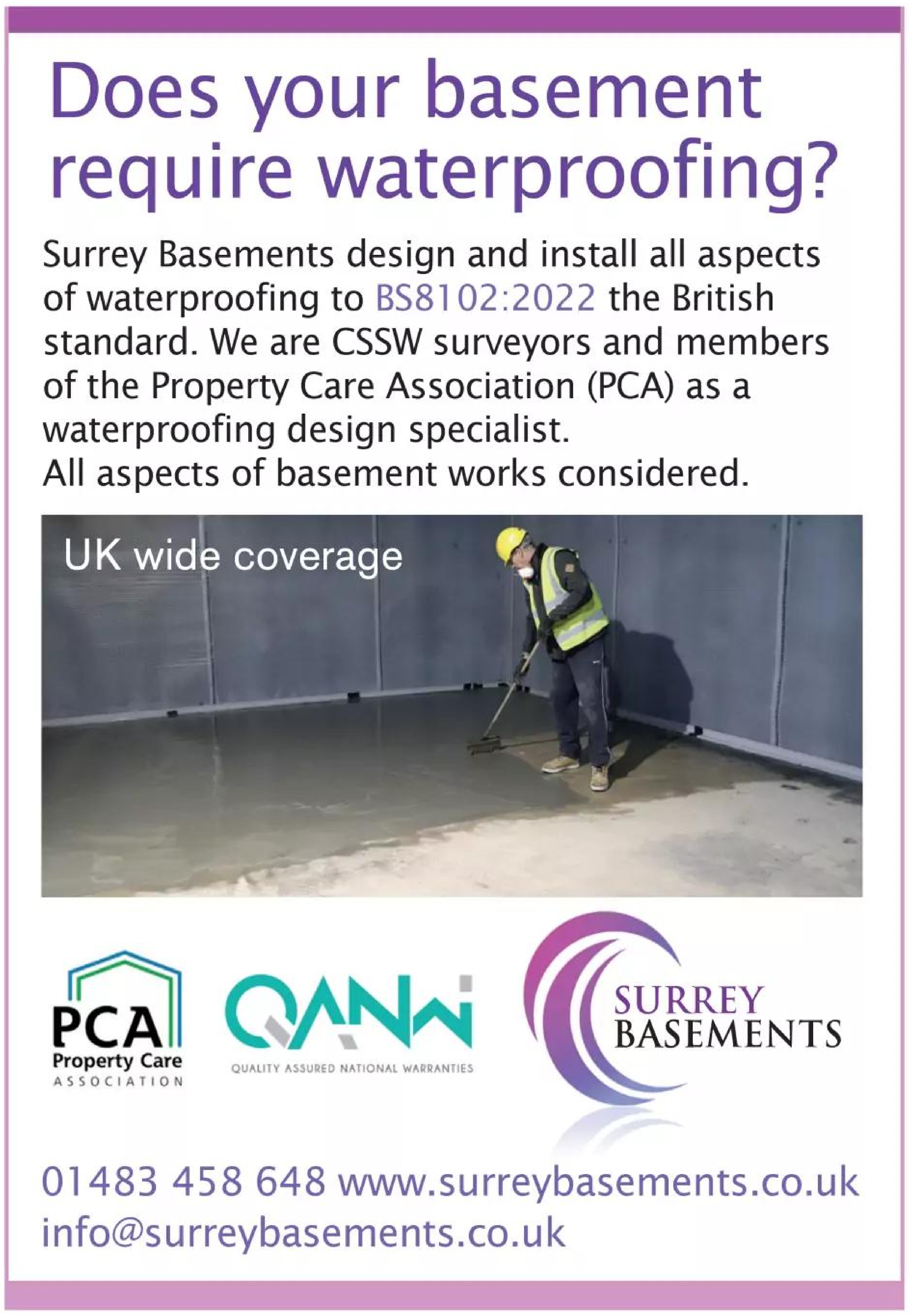

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PLANNING 101

HOW DOES THE UK PLANNING SYSTEM WORK

Planning expert **Martin Gaine** sets out what you need to know about the process to ensure a successful application from the outset

Above: Planning was initially refused on Tracy Gordon's home due to the height of the house, so Potton redrew the scheme as a single-storey dwelling with a pitched roof and mezzanine room built into the eaves

Getting planning permission for a new home can be a major hurdle for some, and it often feels like the system is impossible to navigate successfully. When starting your self build journey, having a better grasp of how the planning process works can save you time, money and heartache.

In this article, I'm exploring the history of the UK's planning system, going right back to its foundation after the end the Second World War, how it functions today, and how you can use this information to make your way through the planning maze and achieve a successful end result.

MAKING AN APPLICATION

If you're building in England or Wales, you can formally apply for planning permission for your self build project via the Planning Portal (www.planningportal.co.uk) – the Planning Portal will direct you to the Planning Applications Wales page on the Welsh Government website. For the rest of the UK, visit either the ePlanning Scotland or the Northern Ireland Planning Portal sites.

Completing the form online means you're only prompted to answer any questions relevant to your application. The form will then be sent to your local planning authority (LPA) for assessment. Your application must consist of the necessary plans of the site, the required supporting documentation (check with your LPA if there is any specific additional documentation they require as part of your application), as well as the completed form (which will be filled out online as you submit your planning application) and the required fee.

Different applications will have different costs, but you can calculate how much you need to pay via the Fee Calculator on the Planning Portal. It's also strongly advised to contact your LPA if you're unsure of the fee, as submitting the incorrect amount can delay the process.

It's also a good idea to consider who is going to submit the application. Will it be you (the homeowner) or your architect, planning consultant or package home supplier if they're taking care of this stage for you? Once submitted, you'll receive confirmation from the LPA with details on your case officer and a target decision date, but how long this takes to come through will depend on your specific council.

The Town & Country Planning Act 1947

It can be surprising to learn that the UK had no real planning system prior to 1947. For hundreds of years, the country was largely rural and agrarian, and landowners mostly built whatever they wanted. This changed with the Industrial Revolution, which created new pressures from an urbanising population. In the early 20th century, there was a growing awareness of the need to control suburban sprawl and create better living conditions.

The end of World War II brought a desire for change, as well as a need to rebuild cities that had been reduced to rubble. The result was the Town and Country Planning Act 1947, which established a new system under which local authorities would draw up plans to guide the development of their areas. It also meant that landowners would be required to make planning applications, which would be assessed in light of those plans.

The Act created new towns, like Stevenage in the South East of England, and Runcorn in the North West. It also introduced most of the key features of the planning system that we are familiar with today: planning appeals, enforcement, listed buildings and green belts (to stop existing cities spreading too fast into the countryside).

The 1947 Town and Country Planning Act has survived largely intact to this day. Its descendant, the Town and Country Planning Act 1990, is the cornerstone of the planning system in England and Wales today (Scotland and Northern Ireland have similar but distinct systems).

What is classed as development?

At the heart of planning law is the concept of development. Within Section 55 of the Town and Country Planning Act 1990, it defines development as: "The carrying out of building, engineering, mining or other operations in, on, over or under land, or the making of any material change in the use of any buildings or other land."

What this essentially means is that you will require planning permission for building works, and for material changes of use that are of significance.

The plan-led system

The Town and Country Planning Act aims to make the planning system simple and transparent. It insists that decisions are made on the basis of adopted policies, with the expectation that applicants would read and understand them before submitting for planning and therefore have a good idea whether their application will be successful. This is known as the plan-led system.

Whether certain policies are relevant to your proposal depends partly on your site's constraints – is it in the green belt, for example, or a conservation area, or does it have a listed status? If you can work out which limitations apply to your site, and read the relevant policies on development, you should be on track for an approval.

Although policies should make decisions predictable, the reality is somewhat different. Firstly, policies are subject to interpretation – if the paperwork states that a new self build house should be of good design and blend in with its surroundings or local architecture, it is a matter of judgement as to whether your proposal complies.

In addition, the Town and Country Planning Act states that decisions must take account of any 'other material considerations'. A material consideration is anything that is relevant to the assessment of your application. Planning policies and site constraints are obviously material, but so is the planning history (what applications you or others have made in the past) and specific site circumstances (such as the presence of existing structures on the site, or a close relationship with neighbouring properties).

Planning control vs building control

A common source of confusion is the difference between planning permission and Building Regulations approval. While both are required for most development projects, they serve different purposes. The planning system focuses on the appearance of buildings, their impact on neighbours and how they are used. Building control ensures that houses are properly constructed in terms of their structural stability, fire safety, ventilation and insulation. These systems operate independently, meaning approval under one system doesn't guarantee that you will be granted consent under the other.

How to navigate the planning maze

It is understandable that homeowners find the system difficult to figure out, but it is a mistake to give up entirely, assuming that the system is impossibly complicated or hopelessly corrupt. Though planning decisions can be variable, you can reduce that variability by ensuring your proposal takes into account the relevant planning policies.

In England, there is a single document that provides the highest-level strategic guidance. It is called the National Planning Policy Framework (NPPF), and it is worth a read (don't worry, it's only 82 pages long), especially if you want a better understanding of how the system operates.

However, it doesn't contain the regional policies that really determine whether you will be granted planning permission. These are mostly contained within local planning documents and differ from council to council. To view yours, go to your authority's website (usually council name.gov.uk), click on planning, and then policies. You will be presented with a variety of policy documents. It may take time to work out which sections are relevant to your specific project, but don't be daunted.

For no good reason, there is no uniform naming system for these documents. Some councils call them the local plan, but they can be called the core strategy, strategic policies or development management policies. There will also be a proposals map, which show geographic restrictions, such as the extent of the green belt or the boundaries of conservation areas.

Of course, you don't need to read all this yourself – that's why you've instructed an architect or planning consultant. However, check your agent has a good understanding of policy and can explain how your proposal will be assessed and why it's likely to succeed.

EXPERT VIEW

JULIA RIDDLE

Build It's Planning expert shares how the ecology of your site can impact your plans

It would be wise to assume that in any designated location, the extent of works that can be achieved on a site will be constrained. The scope and nature of any limitations depends on what ecology needs to be protected.

Even where a site is not of a specific designation, there may be a need for an ecological survey as part of a planning application. Every council will have a list of validation requirements, which may include an ecology assessment. In which case, it is helpful to undertake this early in the process to identify any ecological constraints which may affect your plans to develop the site. This might include bats, birds, badgers and newts. Some of these species are more challenging to deal with than others, hence the importance of knowing early on what the constraints and impacts may be.

Any ecology surveys also need to be properly thought about in terms of timing – there are windows during the year where certain surveys can and cannot be undertaken. This affects the planning process as these surveys may be needed to accompany an application, for a formal decision to be made, or for development to commence on site – all of which may hold up the process if the appropriate seasonal window is missed. Their findings may require further mitigation works which are time constrained and/or costly. So, the earlier you can identify and understand the relative ecology impacting your site, the better.

Build It readers Jonathan and Joanna Lunn had to pay for ecology surveys when planning their self build, due to evidence of bats in the roof of the existing property on their site. Their approved planning permission required them to build bat boxes into the fascia of the house to accommodate them in future. The stylish project is by Baufritz (www.baufritz.co.uk)

MARTIN GAINE

Martin Gaine runs planning consultancy Just Planning (www.just-planning.co.uk). A former case officer, he has experience on both sides of the planning divide and now specialises in helping homeowners win consent at appeal. He is the author of How to Get Planning Permission: An Insider's Secrets.

Right: This tiltable external wooden louvre system by Sunshield (www.sunshield.uk) assists in managing overheating risk, thereby helping projects comply with Part O of the Building Regs

Technical design & buildability

Successfully taking your self build from concept to completion requires you to consider the different rules and restrictions that help ensure your home is safe and comfortable. Architect **Julian Owen** takes a closer look at the key areas to note

If you want to help your self build project come together smoothly on site, without the headaches and tantrums that feature so prominently on TV shows, pretty much every key decision made as the scheme develops should be subjected to a buildability test. Part of this is compliance with Building Regulations; but beyond that, the technical design needs to be properly developed to deliver the performance and look you want to achieve. So, before work gets started on site, you should have a clear idea of how the government rules will impact your design, how it will be put together and have eliminated any difficulties with the construction.

What are Building Regulations?

The government imposes thousands of various rules on construction projects of all types, and many of them are covered by the Building Regulations. These are set out in a series of booklets known as Approved Documents in both England and Wales, Building Standards in Scotland and Technical Booklets in Northern Ireland.

Strictly speaking, the Approved Documents are not the Building Regulations passed in law, but in fact guidance to show how the regulations can be satisfied. So, in theory, you can come up with you own methods to comply with their core requirements. In practice, however, this is not a good idea, because you would then have to prove how your way should be approved, which is usually an expensive exercise that wastes time.

At their core, the hundreds of pages of guidance in the Approved Documents are based on a simple set of principles that are laid out concisely in the legislation. If you are employing a builder, the effects of the regs can be split into two categories – those that protect the community and those that protect you.

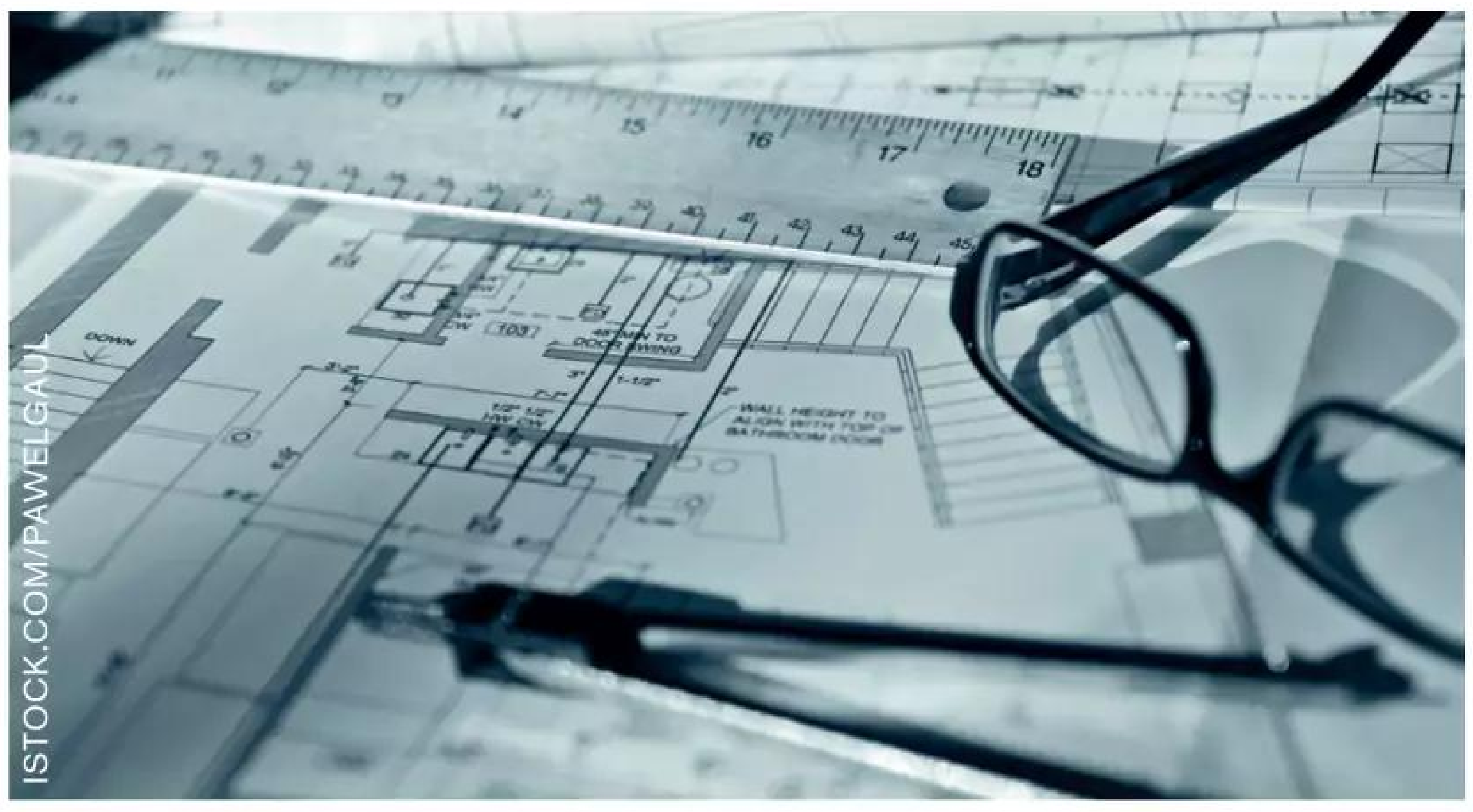
At this point, a fair question to ask is: "How do they help me?" Well, here's just a small selection of the ways Building Regulations can help make your self build project safe, comfortable and a roaring success.

Ensuring structural integrity

One of the most essential aims of Building Regs is to ensure that once a structure is constructed, it will stay up and won't sway, bend or crack later; or at least not to an extent that you'd notice. Inspections of the foundation trenches by a building control officer or approved inspector are crucial in this respect. A builder cannot pour the concrete until the trenches have been properly checked and approved.

Protecting your health

Many people who have lived in an older house, built before the current regulations came into force, are familiar with the slightly musty smell caused by rising damp. Nowadays, homes must have either a waterproof sheet or a ventilated gap under the floor and a damp proof course in the walls, to prevent moisture from ruining the fabric of your building, as well as your health from resulting mould and mildew.



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Energy efficiency & overheating

The most significant changes to regulations in the past decades are those that affect the energy used by our homes. The most well-known of these rules are the ones that require increasingly thick layers of insulation. Although this has increased build costs, there is a clear benefit to occupants in the form of much less heat loss and, as a result, significantly lower energy bills.

Approved Document O is designed to prevent overheating. It was created as a response to the desire for large areas of glass, which has resulted in many new houses getting far too hot in the summer.

The highly glazed look is immensely popular. So, there is little doubt that, unchecked, some designers would have continued to create large unshaded walls of south facing glass, leaving their clients living in a potential oven in the future. Reducing this risk is possible by limiting the amount of glass that can be fitted and, in some cases, requiring built-in shading and more ventilation measures.

Foolproof drainage

A buildable design must ensure that – regardless of where bathrooms, kitchens and utility rooms are located – the drains can be built to minimum falls and there is clear access to rod them clean via inspection chambers and the like. Once building work is underway, a key task for the building control officer is to inspect the drains after they have been laid out and before they are buried.

Non-regulatory design strategies

When it comes to improving buildability, there are a few principles to follow that don't fall under Building Regs. Using simple shapes and 90° angles in the plans and elevations is a good way to start. These ensure the building is straightforward to set out on site and requires less skill and time to complete than more complex forms.

Maximising standardisation is an important concept; one that is well used by the companies that build those large estates. If the sizes and details of the materials and components used are restricted to a few types, the work required becomes more predictable and with every repetition of a task it gets quicker and easier to complete. If all the doors are the same size and design, for instance, and all the related details such as the architraves and ironmongery are also consistent, you can save a lot of time that would otherwise be spent on site measuring, double-checking and preparing timber.

The less cutting of materials before they are used also saves time and reduces wastage. The reason that 2.4m is the standard height for a ceiling in the UK is mainly because that is the size that plasterboard is made (2.4m x 1.2m) and they can be lifted into place on the walls without needing to be trimmed to fit correctly.

This doesn't mean you can't achieve a high-quality look and finish. It's just a question of balancing buildability with wow-factor moments. Working with the right team – including your designer, builder and key suppliers – is crucial to delivering the result you're after. Importantly, a good house designer will prepare all the detailed drawings required for the trades to put it together on site (not just the ones required for Building Regs purposes).

BUILDING REGS TECHNICAL GUIDANCE DOCUMENTS

Responsibility for the regs has been devolved to national governments across the UK. The regimes are very similar in England and Wales, with 19 Approved Documents setting out guidance on each area. Northern Ireland's Technical Booklets are split into 16 areas, while there are eight sections to Scotland's Building Standards. Procedures are a little different in Scotland, where work cannot start in any form until a building warrant has been secured, and a new house cannot be occupied unless a habitation certificate has been issued.

ENGLAND & WALES	SCOTLAND	NORTHERN IRELAND
Part A – Structural safety	Section 0 – General	Technical booklet A – Interpretation & general
Part B – Fire safety	Section 1 – Structure	Technical booklet B – Materials & workmanship
Part C – Site preparation & resistance to contaminants/moisture	Section 2 – Fire	Technical booklet C – Site preparation & resistance to moisture
Part D – Toxic substances	Section 3 – Environment	Technical booklet D – Structure
Part E – Resistance to the passage of sound	Section 4 – Safety	Technical booklet E – Fire safety
Part F – Ventilation	Section 5 – Noise	Technical booklet F – Conservation of fuel & power
Part G – Sanitation, hot water safety & water efficiency	Section 6 – Energy	Technical booklet G – Resistance to the passage of sound
Part H – Drainage & waste disposal	Section 7 – Sustainability	Technical booklet H – Stairs, ramps, guarding & protection from impact
Part J – Combustion appliances & fuel storage	Appendix A – Definition of terms	Technical booklet J – Solid waste in buildings
Part K – Protection from falling (includes glazing safety in England)	Appendix B – Standards & other publications	Technical booklet K – Ventilation
Part L1 – Conservation of fuel & power		Technical booklet L – Combustion appliances & fuel storage systems
Part M – Access to & use of buildings		Technical booklet M – Physical infrastructure for high-speed communications networks
Part O – Overheating		Technical booklet N – Drainage
Part P – Electrical safety		Technical booklet P – Sanitary appliances, unvented hot water systems & reducing risk of scalding
Part Q – Security		Technical booklet R – Access to & use of buildings
Part R – High-speed electronic comms networks		Technical booklet V – Glazing
Part S – Infrastructure for EV charging		Schedule 1 – Transitional provisions
Part T – Toilet accommodation		Schedule 2 – Classes of exempt buildings
Approved Document 7 – Materials & workmanship		Schedule 3 – Particulars to be given on application

JULIAN OWEN

Julian Owen is an East Midlands-based chartered architect and author of several books on self build and house alterations. His publications include Self Build, Home Extension Design and Kit and Modern Timber Frame Homes. He's also the founder of the ASBA Architects network. To find out more visit www.asba-architects.org.

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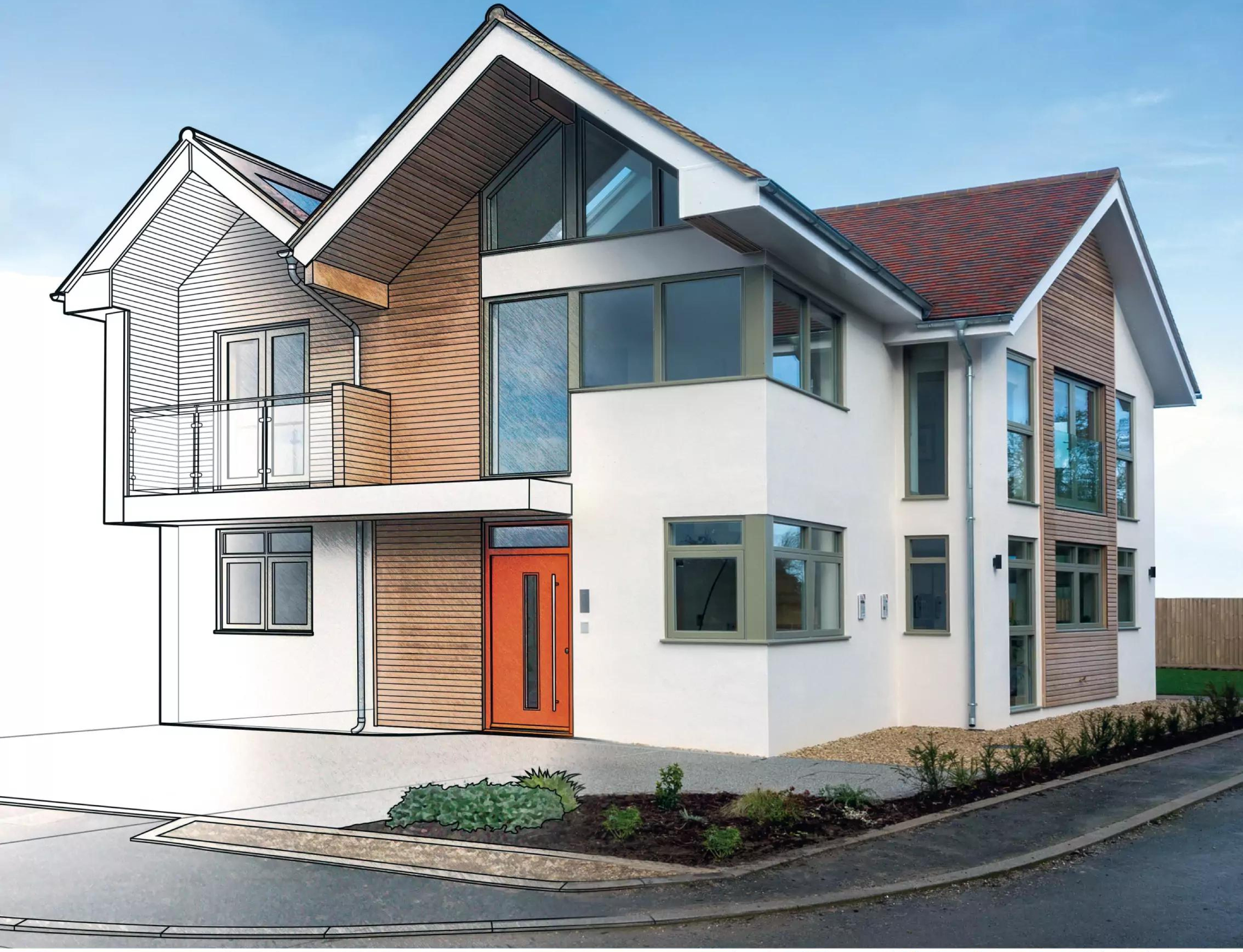
BuildIt's

Self Build Education House

Build It's innovative Self Build Education House was – and remains – a first for any magazine. Eight years ago, we set out on the path to create our very own real-life home, built solely to inform and inspire our readers. Completed in late 2019, just in time to celebrate Build It's 30th birthday, this pioneering project underpinned our values as the most practical and detailed resource for anyone who wants to create their bespoke home. Here, we revisit our project, the decisions we made, what we learned along the way… and what we might do differently now.



IN THIS GUIDE

Introduction: what is Build It's Self Build Education House?

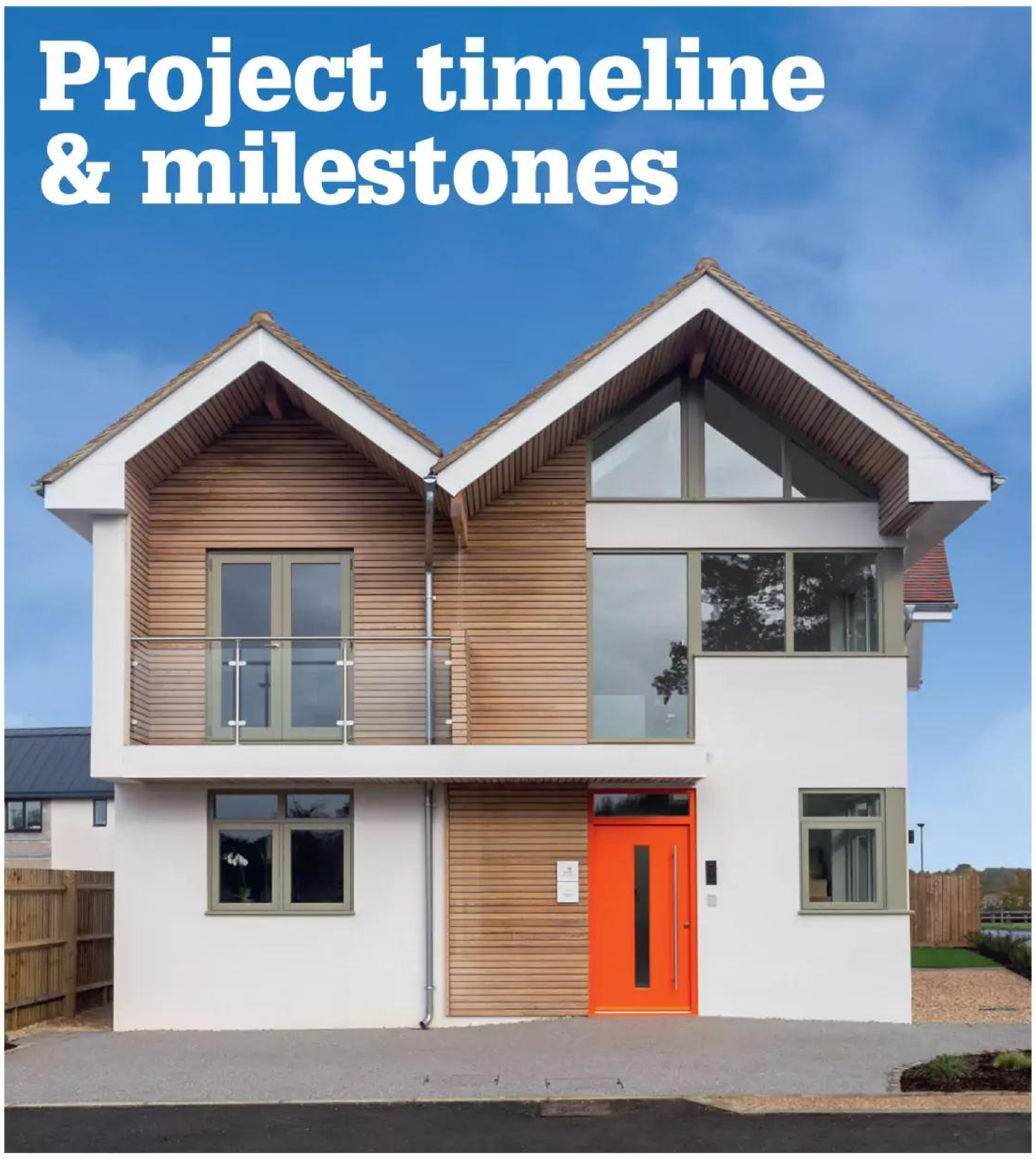
Project timeline: a look back at the highs & lows of our journey

In focus: interrogating our key specification choices

What's new: the latest products & services from our build partners

For the full story of our pioneering self build project, a virtual tour and details of all the partners we worked with along the way, visit **WWW.SELF-BUILD.CO.UK/OURHOUSE**

Project timeline & milestones



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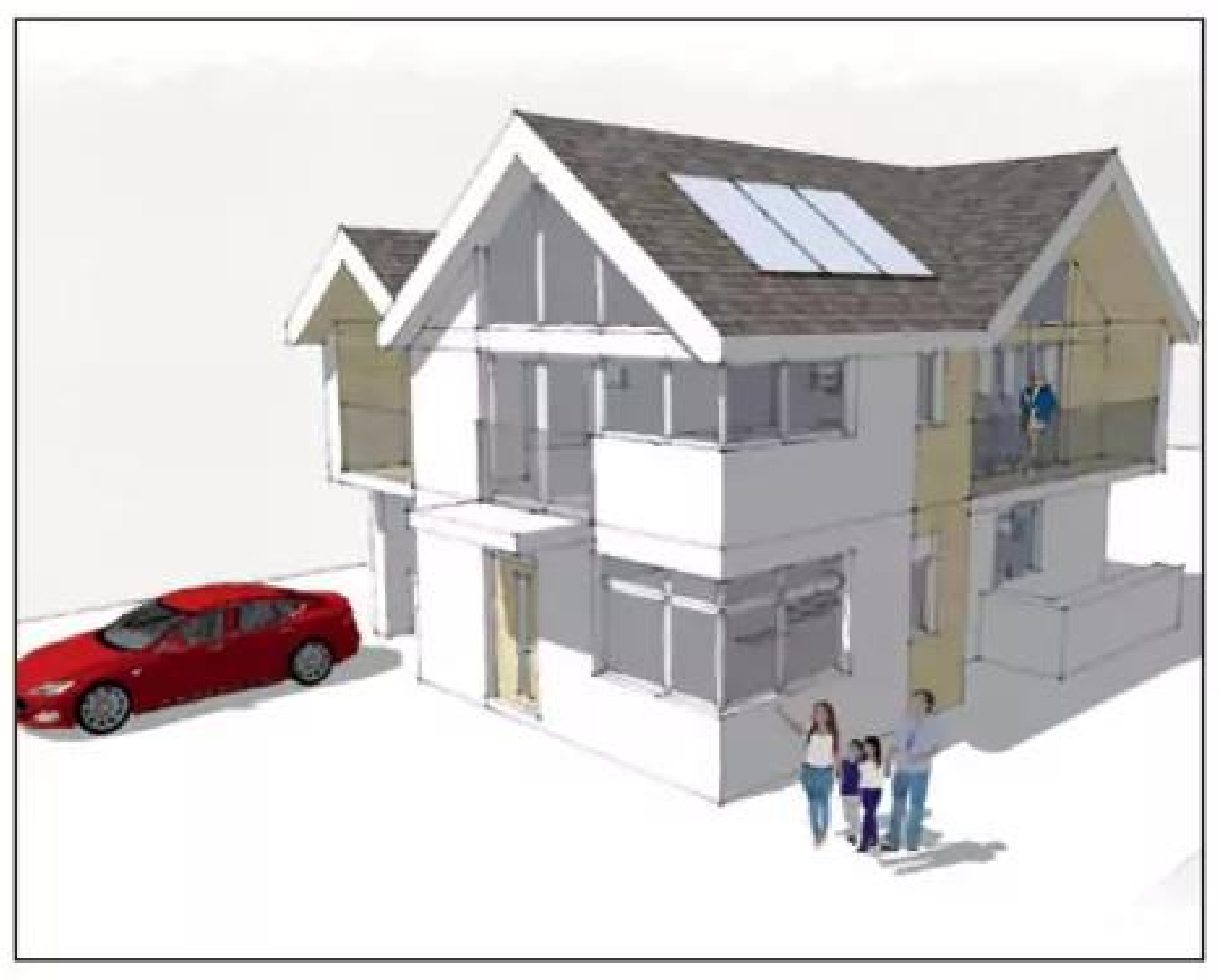
Back in 2020, to celebrate Build It's 30th birthday, we took our mantra to be the most practical resource for self builders to the ultimate level, by opening our very own real-life project to the public. Launched in partnership with Graven Hill, for five years our self build delivered a unique experience as an educational hub, where visitors could experience life in a bespoke home first-hand, learn about the choices we made, gain a benchmark for their budgets from a fully-costed build, and investigate how different choices might have impacted the finished result.

While the time has now come for Build It's Education House to close its doors and embark on a new life as a private home, it's still a fantastic reference point for self builders – not least because the forward-thinking design and specification remains relevant in 2025. In this special section, we're looking back at our project journey and delving into some of our key decisions.

LOCATION Graven Hill, Bicester
TYPE OF PROJECT Self build
PROJECT ROUTE Architect-designed; self-managed with support from main contractor
CONSTRUCTION METHOD ICF walling & SIPs roof
HOUSE SIZE 232m²
PLOT SIZE 330m²
PROJECT COST £517,892 (plus plot)
BUILDING WORK TOOK 10 months

2017



Milestones: Sketch design; planning application
We began the design phase in mid-2017. Opinder Liddar from Lapd Architects presented his impressive initial sketch ideas in September. With a few tweaks to meet the criteria for our Graven Hill plot and serve our educational remit, the design was ready to go into planning in November.

There's a rule of thumb that you should spend as long on design as on the actual build – and that proved the case at the Education House. Fleshing out as much detail as possible before you get on site is the best starting point for a smooth project journey, with fewer question marks about how things should be built – although some choices will always need to evolve during the works!

2018

Milestones: Planning granted; draft technical pack produced
Planning was rubber-stamped in January 2018. From there it was full steam ahead appointing and pulling together information from key suppliers and trades. Think walling layouts, SIPs roof design, heating and ventilation system, window schedule, claddings and roof tiling, and more. Our decisions were all fed back to Lapd to create the technical drawings and Building Regs package, which was ready by the end of October.

In the intervening period, Graven Hill cleared the plot ahead of our start date. The site sits just behind the 10 pioneer plots filmed for Grand Designs. We were first to get underway in our row, but the nearby plots have since been built out.

NOVEMBER

Milestones: Plot handover; breaking ground
Plot purchases at Graven Hill involved a handover, where plot boundaries are marked out and various documents signed. Day one, and our first issue reared its head: the welfare unit hire firm ran out of the spec we'd requested. We ended up with two smaller units for the same price, but had to pay the electrician an additional £350 to run extra temporary armoured cable for the second cabin.

Our basement contractor took up tools on day two. Breaking ground is the point at which your new home begins to move from dream to reality, and the questions start to come thick and fast! By the end of the month, the hole for the basement had been dug out.

DECEMBER

Milestones: Floor slab down; basement pour
Just 22 days in, and the basement floor slab was done – complete with upright steel rods to provide a strong connection between this and the ICF basement walls. Next up came stacking, aligning and bracing the formwork, including steel rebar to the engineer's specification. After less than a month on site, we were ready for the first pour of concrete for the ICF superstructure. Just a few days later, the beam and block ground floor structure was installed. By Christmas, we already had the shell in place for the basement storey of the Education House, and we were feeling very good about progress against our project schedule.

2019

JANUARY

Milestones: Basement waterproofed; ground floor walling progress

Our waterproofing system was designed and installed by specialists Surrey Basements. Their solution combined a spray/brush-applied slurry with an eggcrate-like cavity drainage membrane and sump pump. In use, we've found we do need that pump, as water collects in it via the drainage channels. It needs annual servicing to check it's still working.

Most of the second half of the month was focussed on erecting the ICF blocks for the ground floor walling. Progress was slower than ideal, but a site meeting in early February ironed out the details on precise structural opening sizes and positions, helping to get things back on track.

FEBRUARY

Milestones: Ground floor pour; first floor structure

By the middle of February, the ground floor walls were ready for the concrete pour, which – as with the basement – was completed in a single day. We then need to wait a few days for it to cure to sufficient strength, before continuing with the structural works.

We went with posijoists for the intermediate storeys, which feature an open metal web to allow for easy running of services – particularly important when specifying MVHR. As ICF is a heavyweight system, we could have continued with beam and block, but wanted to compare different floor solutions. Several steels were necessary to enable our open-plan design, along with a glulam that supports a balcony and porch on the front elevation.

MARCH

Milestones: First floor goes up; steels & glulams

March saw the first floor walls up & poured, with internal loadbearing walls also going in. Unfortunately, the ICF installer had misinterpreted the threshold detail for our French doors and poured the concrete too high – leading to extra cost and delay for the hard labour to cut it back. From then on, we decided to mark all floor levels and other key information directly onto the blocks in permanent marker. We wish we'd done this from the start!

Towards the end of the month, our main contractor spent a few days manoeuvring steels and glulams – for roof support and the open corner in our vaulted hallway – into position using a beam lifter. In the basement, our Screedflo self-levelling liquid screed was installed.

APRIL

Milestones: Gable walls built; SIPs roof craned on

Getting to weathertight involved ironing out a few complex details. For instance, one section of wall is angled (adding more space and reducing noise transfer in the open-plan kitchen-diner). The trickiest bit was the gable wall the pre-insulated SIPCO roof panels would sit on, which required a compound angle at the junction.

The panels and glulams were installed in just a couple of days, including pre-made apertures for rooflights. Their strength and slim profile enabled our double-height hallway and liveable attic. One learning point was the need to appoint an overseeing engineer when pairing two build methods. SIPCO stepped in to resolve the interface between materials.

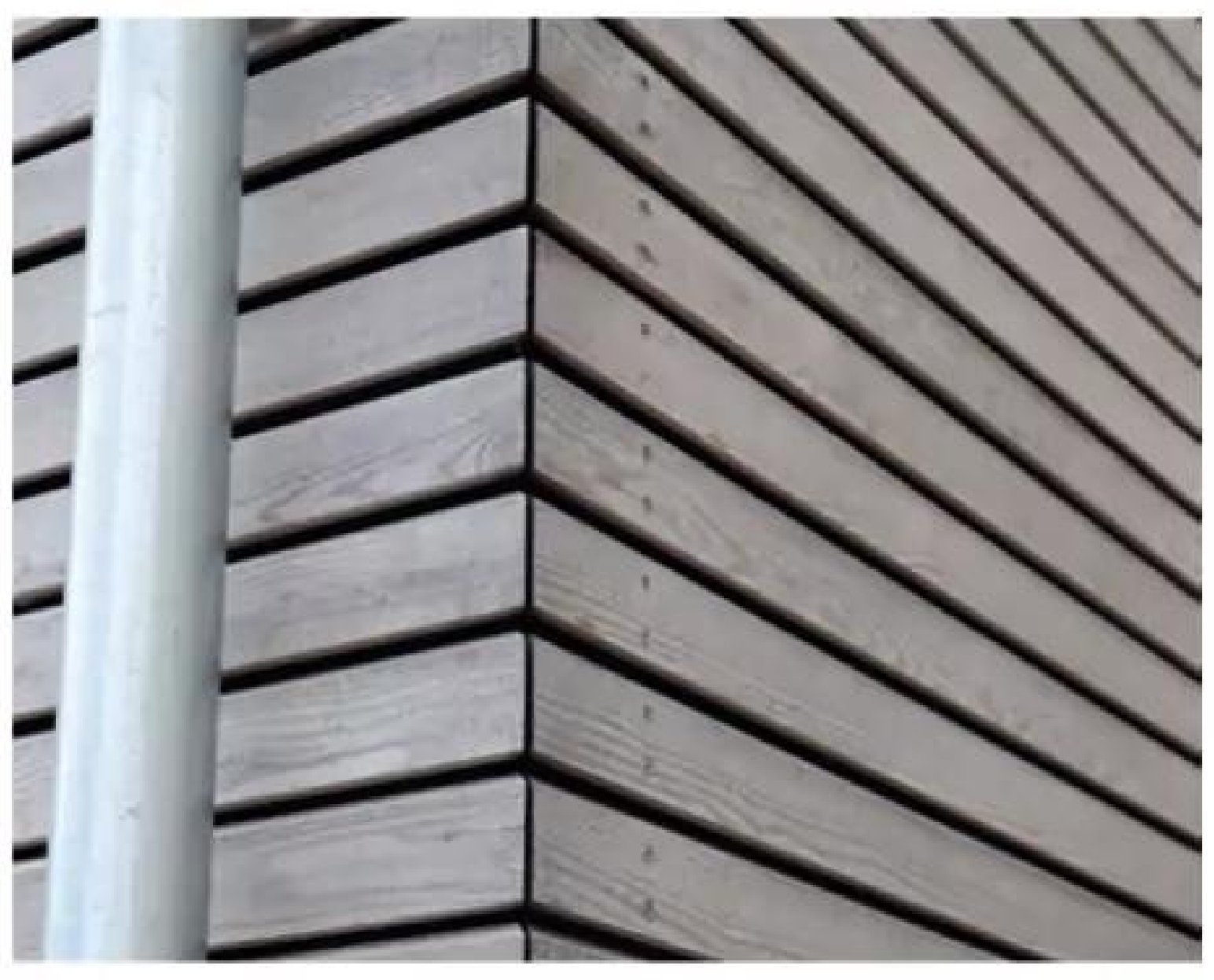
MAY

Milestones: Windows installed; first fix begins; roof tiling underway

With the roof on and the project largely weathertight, our project became a swarm of activity. The first trades on site were the Total Home Environment crew fitting our heat pump ventilation system – who were understandably keen to get their large-diameter ducts in before any of the plumbing or electrical infrastructure hogged up space – and Kloeber's install team for the timber windows.

We were able to specify the majority of our glazing based on the structural drawings, which avoided lead time delays. But Kloeber and Lapd Architects rightly both advised us to wait until the apex in the vaulted hallway was actually built before ordering the fixed panes for this area – and, in late May, they were back on site measuring up for this.

Other activity this month included: erecting the stud walls; Moss Technical's team running the cabling for our Niko Home Control system; installing the Nu-Heat underfloor heating pipework and manifolds; flowing the screed for the acoustic floors on the upper storeys (which work very effectively); and roof tiling works. The main challenge in this period was the number of decisions that need to be made thick and fast, from site meetings to discuss whether there's a way to tighten up the service duct box-out from the basement, through to selecting the best mortar colour for the roof verges and ride tiles.



JUNE

Milestones: Airtightness focus; cladding; sliding door install; solar panels

This is the month where the house began to feel like a home. Internal walls were insulated for acoustic performance and plasterboarded, and the external Russwood larch cladding was installed (to be complemented by a modern render). We also took the time to apply some final airtightness measures – a process that our main contractor wasn't overly familiar with back in 2019.

Mid-month, IDSystems' team came into fit the slimline sliding door in the kitchen-diner, which was done in a single day. Their insights were helpful in deciding how to locate the door within the opening, to get the right look where it meets our render and timber claddings. In one corner of the house, we have wraparound timber cladding. Fixing this effectively to the polystyrene blocks involved double-battening as close to the edge as possible and leaving a 10mm gap where the mitred larch strips meet. It was labour intensive but produced an impressive effect – and still looks just as good today.

Specified and installed at short notice after the original supplier pulled out of the self build market, our solar PV array went onto the roof in late June. It definitely contributes to our electricity needs, but we're disappointed that we've never been able to get data on how effective the battery is. It's unsatisfying as a self builder to spend £7,000 on tech and not know how it's performing!

2019

JULY

Milestones: Rendering; plastering; second fix begins

What a difference a few weeks makes! July saw yet another flurry of activity, much of which was about closing up the underlying structure. Our choice of ICF for the walling meant the K-Rend silicone render could be direct-applied to speed up installation. It features an integral mesh for cracking and impact resistance, and the colour is embedded in the topcoat – meaning no repainting over time.

In the meantime, internally, plastering was underway in the bulk of the house (with Amina plaster-over speakers hidden in some walls and ceilings). We needed to move forward with this to enable our other trades to progress their second fix work, and to not lose our slot with the plasterers (who are busy people!). The downside was we didn't yet have our apex glazing in place. This meant the vaulted hallway couldn't be plastered or rendered at the same time as the rest of the house, and we would have to wait for those trades to become available again to finish the job.

At this stage of a project, there's a lot of disparate elements going on simultaneously. Other progress on site included the installation of rooflights in the loft and hallway; roof work reaching completion (fascias, soffits, pointing etc); installation of the main HPV unit and HPW hot water cylinder; floor tiling in the kitchen-diner; measuring up for the feature staircases; and much more besides.

AUGUST

Milestones: Apex glazing; guttering; kitchen install

The moment of truth! Our fixed pane glazing for the vaulted hallway was delivered to site in mid-August. Kloeber had provided guidance on adjustments to the scaffolding prior to the big day, to ensure they could gain access.

As we'd had to fit external claddings already, to keep our schedule on track, the tolerances were tighter for installation. But by the end of the day, despite torrential rain, the frames were in place. The Kloeber team returned a few days later to fit the glass panels. With the final piece of the exterior puzzle in place, we were able to take down the scaffold and reveal the house in its full glory for the first time.

Earlier in the month, we'd fitted the Rainclear galvanised steel guttering, which makes for a contemporary and durable detail at just a tiny uplift in cost versus PVCu (which can be susceptible to movement in hot and cold weather). Throughout August, work progressed on the kitchen (an affordable Howdens range designed to replicate high-spec handleless designs); utility fit-out (also Howdens); balcony detailing; attic staircase (a flatpack pine kit), and all the little bits that need finessing as a project nears completion. There were still little bumps in the road to iron out: one in-plaster ceiling speaker hadn't been skimmed over as planned, for instance, so the surrounding plaster had to be feathered to allow for this to be done.

SEPTEMBER

Milestones: Feature stairs; stove; final fit-out

By this point in the home building process, most of the decisions are made. From here on out, as a self builder your focus will be to keep on top of the finishing touches, to ensure you get the look, feel and quality you want.

At the Education House, a critical part of this was our two feature staircases: the main ground floor flight, and a second design down to the basement. This was precision engineering, with steel support blades hidden in the plasterwork to enable the floating effect. For our builders, the hardest bit was working to the tolerances this demanded. They initially installed the plasterboard a fraction too far out from the blockwork wall, so this had to be redone to ensure the prefab flights would fit perfectly. They did – and they look spectacular!

Once the house had been given a mist coat, it was all guns blazing on the finishing touches. This included our spectacular waterfall worktop on the kitchen island; light fittings, sockets, and wall-mounted smart home interfaces; internal doors (we chose fire-rated versions that are weightier and more pleasant to use than standard hollowcore versions); the glazed internal slider that enables the living room to be divided off from the kitchen-diner; bathroom fit-outs; etc. A favourite feature is the Jotul stove, which adds a much more appealing centrepiece to the living room than a giant TV screen.

OCTOBER

Milestones: Completion & grand opening

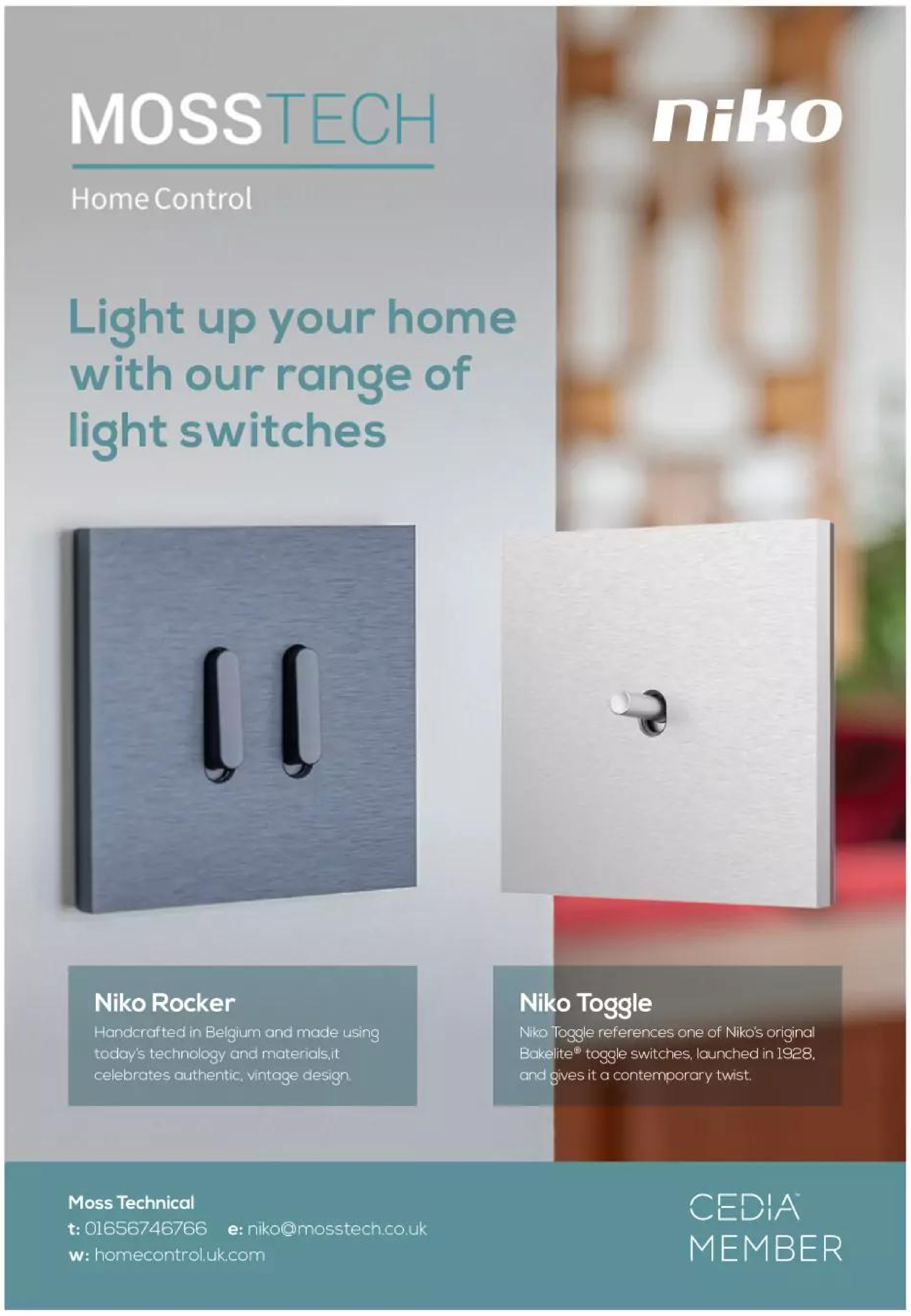
The sense of anticipation as you near completion is tantalising, but the final furlong can feel like slow going. Over the first few weeks of October, the balustrade for our staircase and landing was fitted, balcony glazing installed, external works completed (SureSet resin driveway, turfing and planting), carpeting done, and we began to bring furniture in. Programming and commissioning of the smart home system, heating etc was sorted and signed off – and the house was ready to move into, just in time for an industry soft launch on 30th October 2019. There were a few bits of snagging to do, but most of these were sorted by the end of the year. What a journey!

2023

SEPTEMBER 2023

Milestone: Airtightness

In 2023, we became aware of AeroBarrier. This new product improves airtightness by sealing gaps and penetrations in the fabric using a misting spray, which is sucked into weak spots by pressurising the building. It's usually installed at first fix stage, but can be retrofitted. We took the leap and are delighted with the results: our original respectable airtightness result of 1.83m^3/h.m^2 had slipped to 2.15 as the house settled. AeroBarrier brought this down to an impressive 1.03 – with a corresponding improvement in our energy bills. If we'd been able to use this tech in the build phase, we might have been looking at a bill of just £2,500 – great value for guaranteed airtightness.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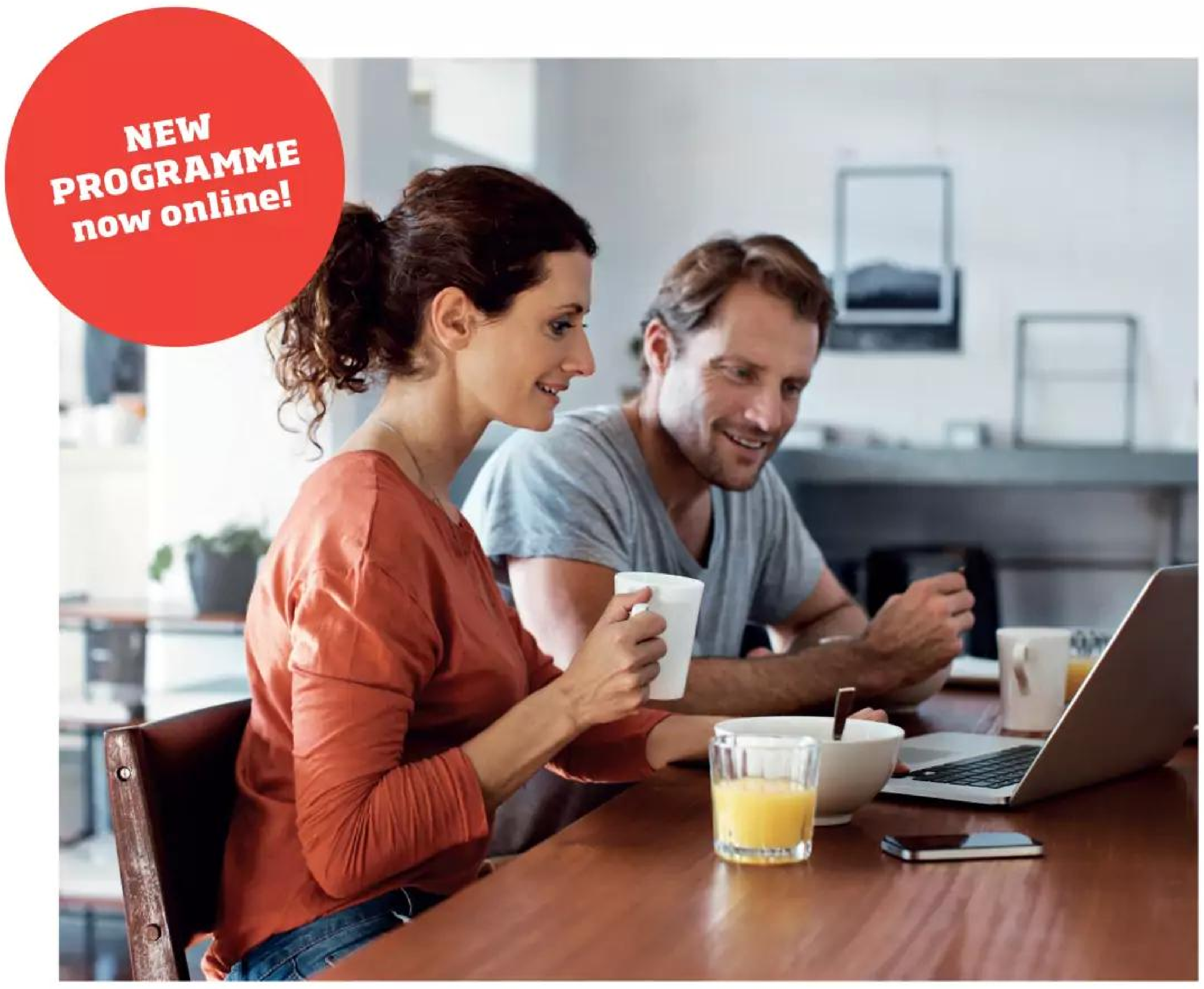
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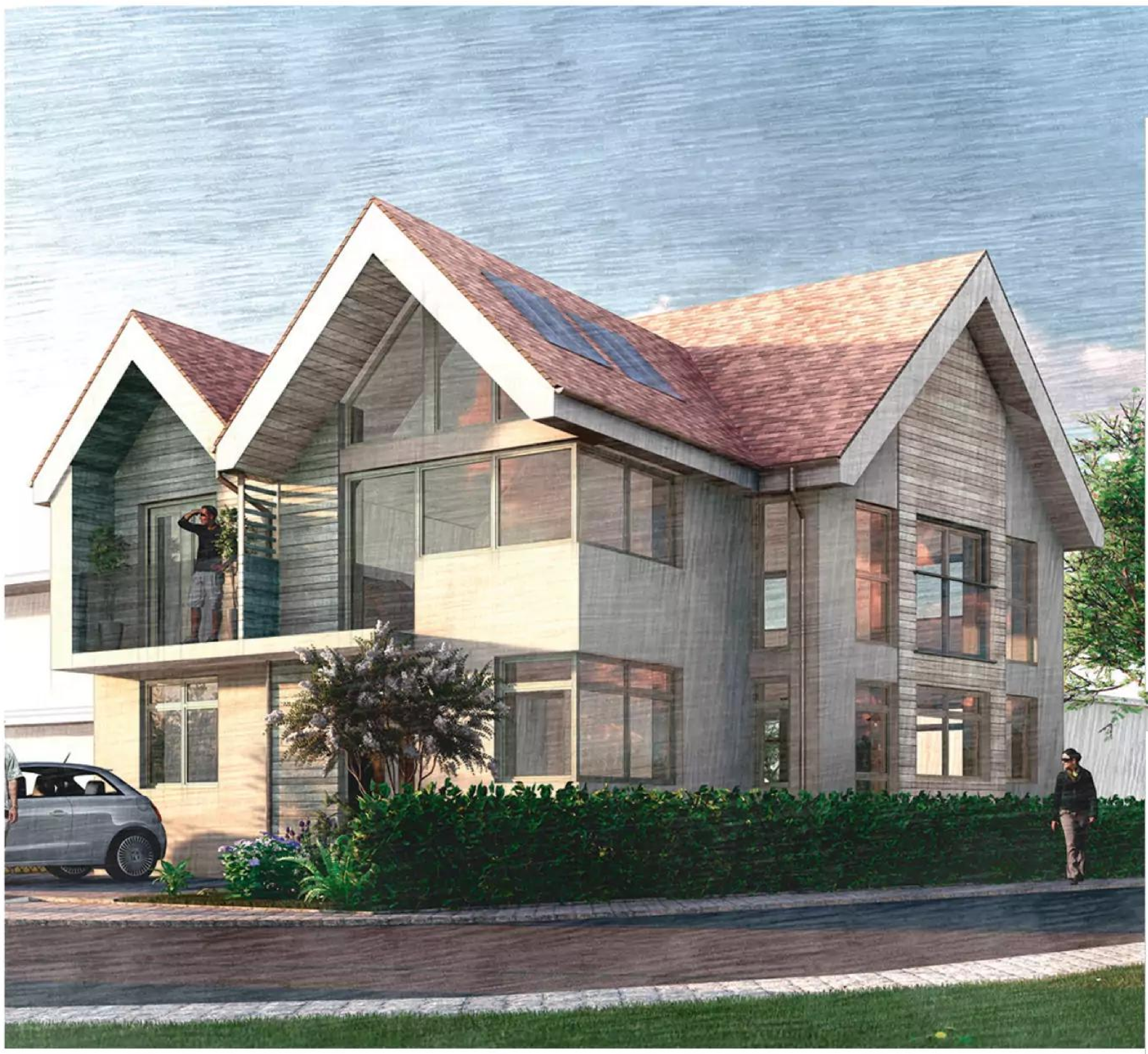
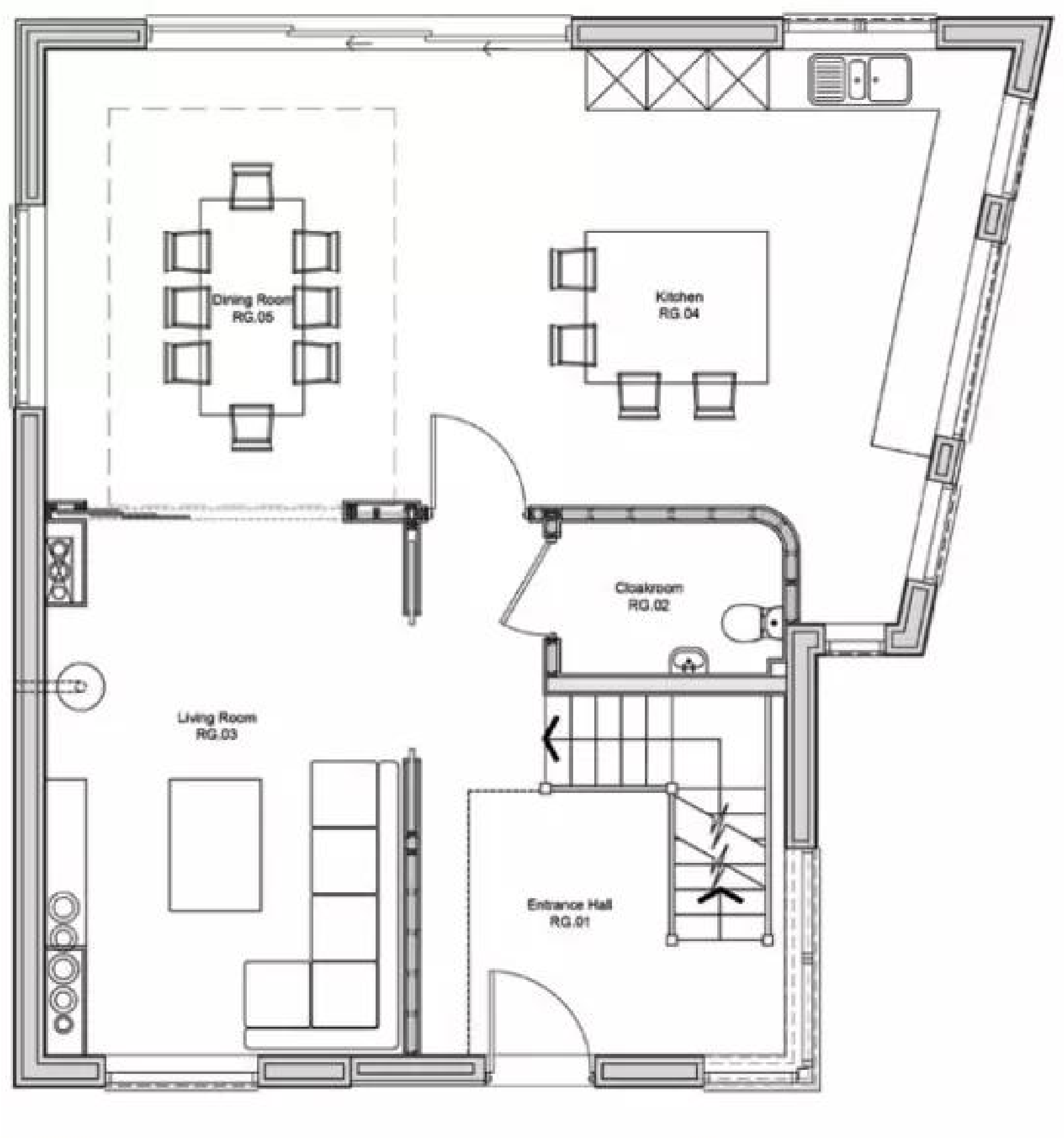
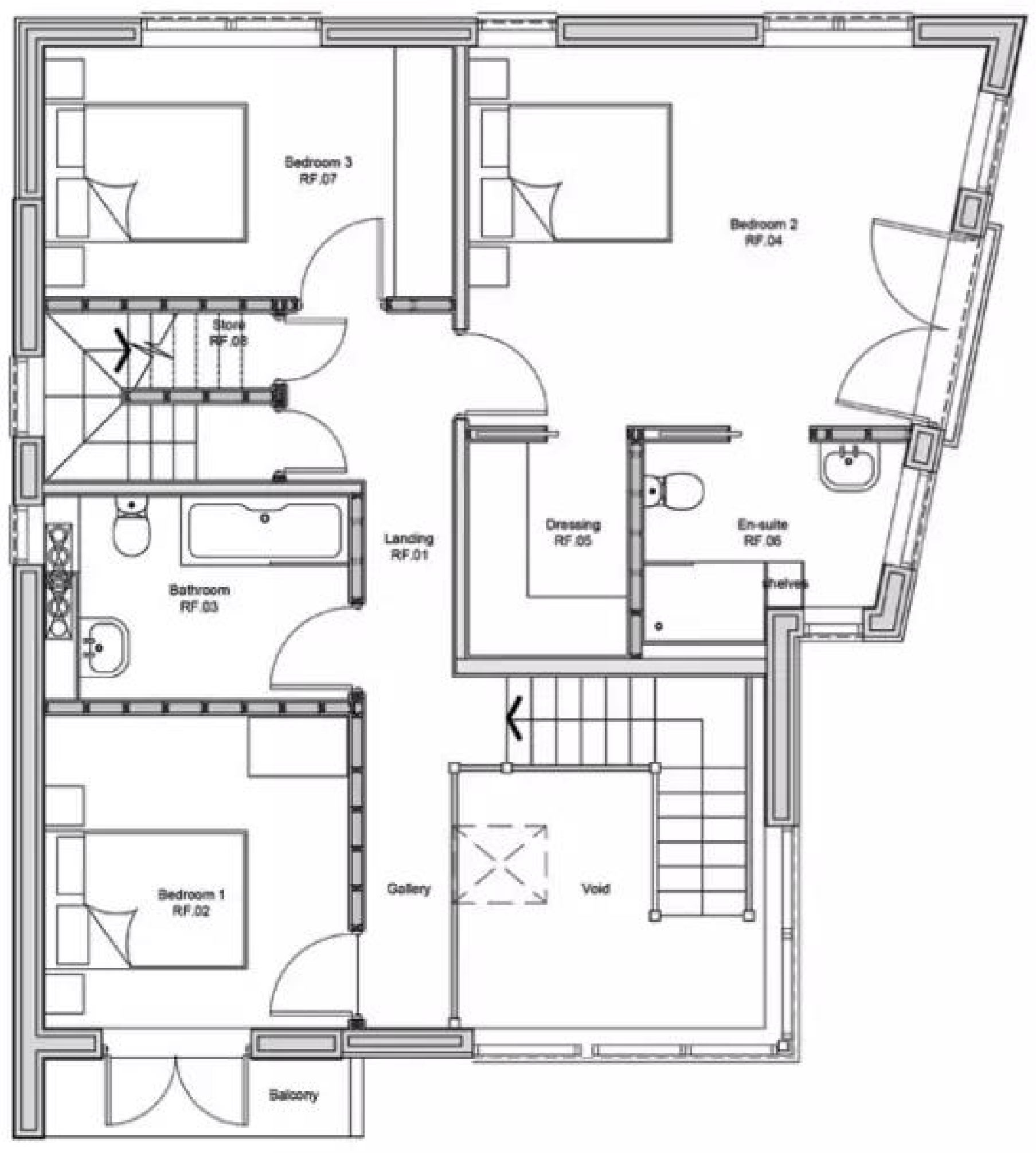


GROUND FLOOR PLAN



FIRST FLOOR PLAN



Designing the house

Opinder Liddar from Lapd Architects – who has been an expert for the magazine and Build It Live shows for many years – was the designer we trusted for our project. His task was to translate our brief, and the parameters set in our Plot Passport at Graven Hill, into a high-quality, wow-factor home that would go on to inspire and educate self builders for years to come. Working together, we finessed the original brief and achieved a plan that exceeded our expectations. Many features of the early sketch designs – including apex glazing in the southerly corner, roof overhangs for solar control, a mix of claddings and a broken-plan ground floor storey – went into the finished scheme. As with any design, there were areas to develop, but even at that early stage we knew that we'd selected the right architect for our project. Six years on, we still love the design and spaces we created at the Build It House.

The project has gone on to inspire several of Lapd's clients, both at Graven Hill and beyond. "We're really proud of the Build It House," says Opinder. "It's an exemplar of what you can achieve. I think the design holds strong and will do so for a long time to come. The house has also had a positive impact on self build in the UK." Indeed, our scheme was recognised with a 2020 RICS Social Impact Award in the Residential category, for its future-thinking design and role in educating self builders.

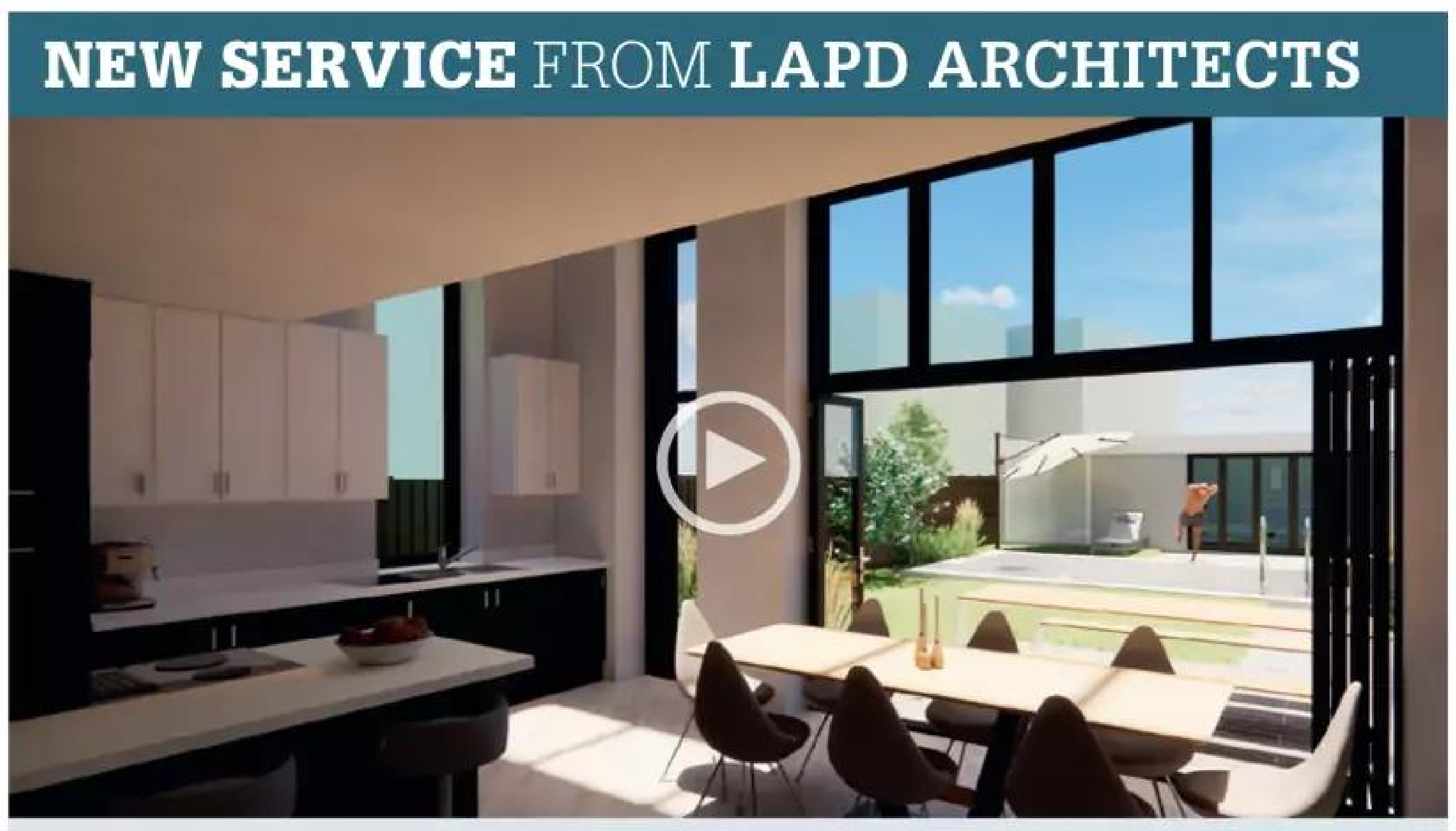
Since we completed our project, there have been a number of technical updates under the Building Regs and the Building Safety Act. "You now need to supply more detail about fire ratings, cavity barriers etc for timber cladding, for instance," says Opinder. "Thermal calculations and SAP ratings have changed, too. Plus, there's Part O of the Building Regs for overheating; this might have led us to deepen the roof overhangs [which we specified for solar shading] or add external louvres in some areas." We did add an exhaust rooflight in this space, which works very effectively.

AWARD-WINNING DESIGN

❝Build It designed and built a house to display contemporary design, construction methods and technological advancements, especially in sustainability, available to the average self builder. It's a fantastic development – huge congratulations!❞

Phil Spencer, RICS Social Impact Award Judge

NEW SERVICE FROM LAPD ARCHITECTS



Lapd has always had a strong focus on providing exceptional service. Since the Build It House, the practice has added several strings to its bow in terms of engaging clients with the design – including software that puts you inside the propose house, virtually, to gain a fuller understanding of what it will be like to live in.

KEY SUPPLIER **LAPD ARCHITECTS** | **01865 407722** | **lapdarchitects.co.uk**

ICF basement & walling

We selected a combination of systems for the structural shell of the Build It Education House, to demonstrate some of the options for self builders and to fit our project goals. The basement and above-ground walls use Nudura's insulated concrete formwork (ICF) system, provided by ICF Supplies.

Sometimes described as LEGO for adults, this modern construction system involves stacking a series of lightweight, hollow polystyrene blocks, which are then braced, aligned, fitted with steel rebar and filled with readymix concrete. The result is super-strong, pre-insulated walls that can enable a range of coveted design features. It's quicker to build with than standard masonry, and offers impressive insulation and airtightness levels as standard. It's also easy to waterproof; a major attraction for us, as one of our biggest decisions was to build a basement in order to maximise the potential of our relatively compact plot.

This zone hosts our plant room (now essential in self builds, due to all the tech that goes into them) and a home cinema that could also work as a gym, study or for other functions. The clay soil on our site meant it cost us just £30,000 more to construct a basement shell, rather than using engineered foundations (many projects at Graven Hill are piled). To accommodate the soil pressure, the ICF blocks are slightly thicker in the basement than for the above-ground walling.

A fully warranted system, ICF provides a high-quality building, with plenty of thermal mass to deliver a comfortable internal environment. "The Nudura system itself is the same today as it's always been," says Alan King, director at ICF Supplies. "The main change is that updated Building Regs require a lower U-value for walls. When the Education House was built, we were able to use slimmer blocks that achieved 0.24 W/m^{2}K – now, as standard we use 356mm-deep blocks that reach 0.16."

The irony here is that ICF doesn't really need to hit that level to deliver exceptional performance. "The regulators don't realise the importance of that thermal mass. You don't get big extremes of temperature because it takes a long time for heat to travel through those layers of external insulation, concrete and internal insulation," says Alan. "Whereas some construction types mean a house will be cold within an hour of the heating going off, the thermal mass effect means an ICF home might take 48 hours or more to lose its heat. We have one client who used the same ICF spec as the Build It House, and their bills are just £450 per year."

The total cost of our basement superstructure (kitted out to a fully waterproof shell, ready for first fix work) and the above-ground walling (including floors and internal walls) came to £123,800 in 2019. Global events and tighter Building Regs imposed since then mean we'd expect to pay significantly more today; an uplift of around 15%-25% wouldn't be a surprise. For instance, it would cost around 20%-25% more for the thicker ICF wall blocks (which have about 70mm more insulation), at least 10% more for the concrete and so on.

Would we build now, though? Absolutely! The materials market has stabilised, but there will always be inflation to account for and waiting will only ever increase the price. So, if you can afford to press the trigger and create a better, higher-performing home now that insulates you against future rises in energy bills, you'll be making a great investment. We're very happy with the quality and performance of the house, and investing in a good building fabric is a key part of that. But perhaps the best feature is the calm, fresh ambience: using ICF has created a very quiet home!

TREND WATCH ICF WINNING PLAUDITS

Since providing the ICF design and formwork for the Build It House, ICF Supplies has gone on to become involved in over 20 projects at Graven Hill, where self builders have been impressed by the Nudura systems' ability to deliver complex, wow-factor architecture. The team also provided the walling for Sarah Beeny's self build, popularised via the Channel 4 show Sarah Beeny's New Life in the Country.

The company's New Zealand arm, meanwhile, delivered the Nudura system for this stunning 819m^2 home in Queenstown. Named Te Toka, it's so efficient, it's capable of being run off grid for six months of the year. The ICF installation took just six weeks, with the builders estimating they saved 16 weeks versus a traditional system. The home has garnered numerous accolades, including the 2022 Unlimited Residential Winner in the global ICF Builder Awards.

KEY SUPPLIER **ICF SUPPLIES** | 01268 542748 | www.icfsuppliesltd.co.uk

Insurance & warranties

As a self builder, you'll be putting a lot of time and money into your project – and it pays to protect that investment. As soon as you buy your plot, you become responsible for what happens on it. Specialist self build site insurance protects you against anything from trespassers injuring themselves on your blank plot, through to the works, materials and tools as construction progresses.

You'll also want a 10-year structural warranty, which takes effect on completion and covers the house (meaning it's transferable to future owners) against defects in design or workmanship for the first decade of its life. Should you decide to sell in that period, it will also ensure prospective buyers can raise a mortgage. We selected Self-Build Zone as our site insurance and structural warranty provider. They're one of the leading players in the UK market, backed by 'A' rated insurers and have a reputation for a flexible, advice-led approach to helping clients achieve a smooth project.

Self-Build Zone also provided an approved inspector service for building control on our project, which tied everything up into a neat cost-saving bundle – although they've recently stopped offering this. "This is mainly due to the Building Safety Act, which came into effect in 2022 and states that you can't have the same surveyor for both building control and warranty inspections," says Jake Fitness, team leader at Self-Build Zone. It's not entirely clear whether you could, in fact, use two professionals from the same company – but at any rate, you would still be paying for two people to come to site.

The Self-Build Zone technical team helped us tighten up details such as ridge tile fixings. They also made us aware of the need to use a professionally designed and fitted waterproofing system with insurance-backed guarantee for the basement waterproofing (something that has since become mandated in British Standard 8102), as well as providing SAP calculations, airtightness testing and final certification.

Site insurance and structural warranties are specifically priced for each project, but the costs are a mere fraction of an overall build budget – and worth it for the peace of mind. Today, we'd expect to pay £5,748 for a site insurance, warranty and technical audit package (around 1% of the build costs). This is a one-off charge; so, aside from paying the excess, if you need to make a claim there's no implications for the ongoing cost of the policy.

As with any house, we've had a couple of small issues post-build, which we've since rectified. The rule of thumb is to first try to get the trades involved to resolve these free of charge. We could have claimed on the warranty for a small roof leak (caused by the tilers' poor installation of valley waterproofing), which we paid a new trade to fix properly, as the original roofer was no longer in business.

KEY SUPPLIER **SELF-BUILD ZONE** | **0340 5230 9874** | **www.selfbuildzone.com**

SIPs roof

SIPCO's structural insulated panel (SIPs) system can be used for the whole shell of a house and is popular for very low-energy builds. We reserved it for the roof, where it enabled the breathtaking – if tricky to clean – vaulted hallway that's inspired many visitors' projects. It also delivered a habitable attic space, which we initially left exposed to showcase the panels, but is now plasterboarded, skimmed and ready to move into.

"The benefit of a SIPs roof is you get a single span from ridge to eaves," says Pete Barr, managing director at SIPCO. "Depending on the total length, it may be broken by a glulam roof support, but you gain lots of space and headroom. Installation time to watertight is also quicker than a traditional attic truss, plus you get fantastic airtightness and insulation coverage." SIPs can achieve all of this in a very thin panel profile; important on our Graven Hill site, where the plot passport set a maximum ridge height of 8.1m. We had a few challenges at the design stage, primarily down to the highly open-plan nature of the house (due to its educational mandate). This meant SIPCO had to design a more expensive structural attic floor to prevent spread.

We chose a high-spec 200mm-thick panel for our roof, achieving a U-value of 0.15 W/m^{2}K – which still beats current regs. "Since the Education House, we've developed a full suite of psi value calculations to demonstrate thermal values at each junction, so self builders can be confident their builds meet the criteria laid out in the 2022 Building Regs," says Pete. "Our system already had BBA certification, but we now have LABC approval and expect to add NHBC imminently, too." Such accreditations help smooth the process for insurance, warranty and finance purposes. Our SIPCO roof and attic floor package cost £26,230 including the design, supply and installation (by a recommended contractor). The price would be around 10% higher in 2025.

NEW FROM SIPCO

SIPCO has been involved in a number of cutting-edge projects, including Wunderhaus – a range of zero-bills homes developed by architect Nico Rensch, with two self build projects about to go live on site. SIPCO's precision-engineered panels deliver exceptional thermal, acoustic and fire performance for these stylish homes.

KEY SUPPLIER **SIPCO** | **01514 245346** | **www.thesipcompany.com**

Roof tiles

The roof is topped with a natural clay tile blend from Dreadnought Tiles, a UK maker, which was installed by a local roof contractor. Our choice of Country Brown, Brown Heather and Red Sanded tiles has developed a pleasing patina in the six years since – as we'd hoped. Dreadnought's Rustic range features a sanded finish, with the colour fired into the clay itself, delivering a soft richness that elevates the house's modern design.

The gorgeous clay tile blend cost £6,281 on a supply-only basis (including valley/gable/ridge tiles and haulage). Global events since our build mean prices have gone up by about 60% in the subsequent six years. Our mix was hand-blended by the roofer on site, which adds to labour costs; Dreadnought's Bernie Fyans says a popular alternative is to have them pre-blended, saving on installation time, at a cost of £130 per 1,000.

With a SIPs roof, the breather membrane is applied directly onto the panels, with the counter battens fixed on top to create a ventilation gap. Horizontal tile battens are then installed at an even gauge (the distance between each of the battens) to achieve the desired finished look. This is different to a standard trussed rafter roof (where the counter battens go down first). It also has implications for follow-on details, such as at valleys.

The only issues we've had with the roof are down to workmanship; not the products. One gutter valley failed, with the remedial works taking longer than ideal. It was eventually fully repaired, but in hindsight we were never convinced by how our local roofer installed the liquid waterproofing membrane system, and should have trusted our gut and had them redo it in the main build phase.

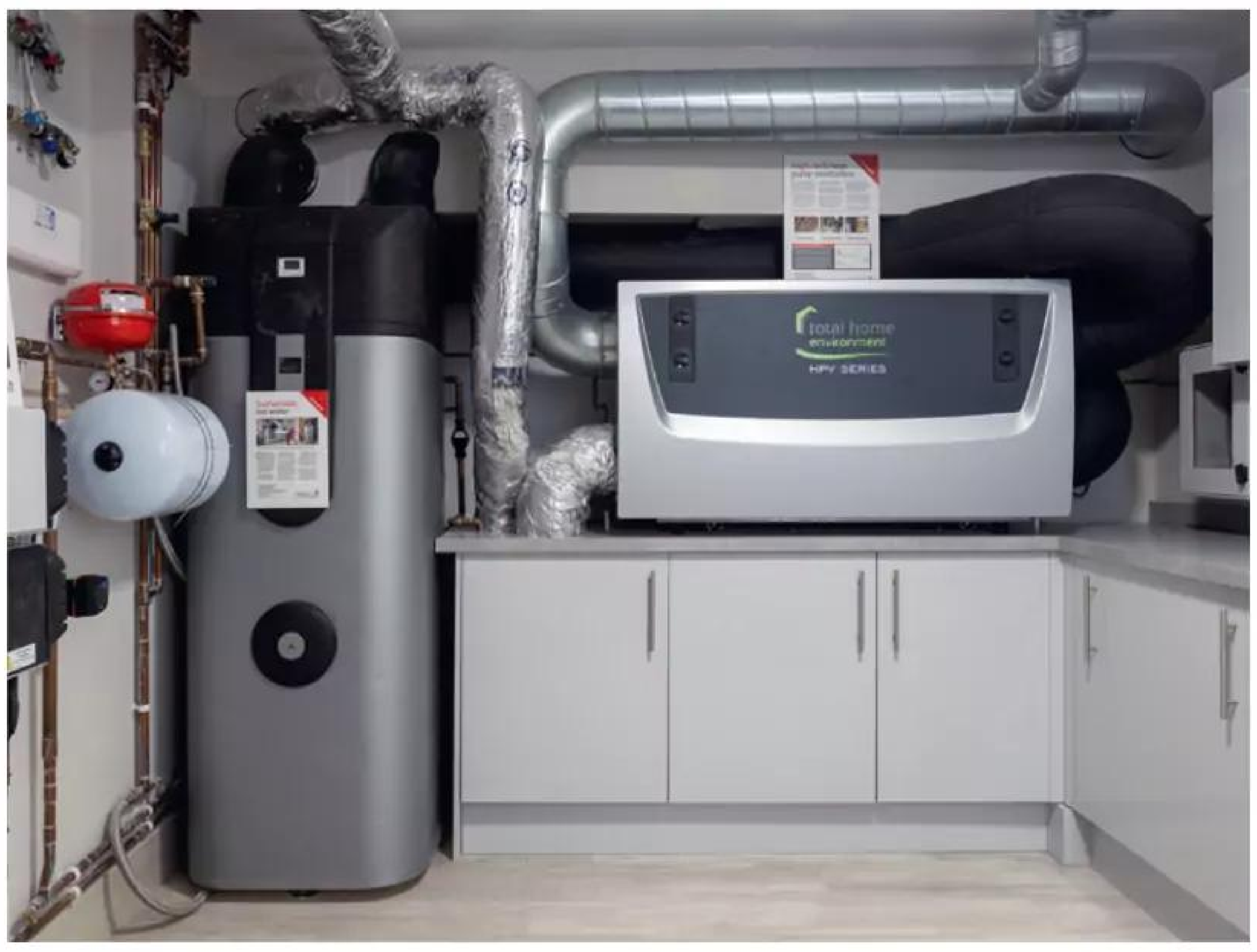
We also had a leak at the junction between the solar panels and the roof tiles, where it transpired the flashings weren't properly stuck down. Again, this was likely due to workmanship and is now resolved.

TREND WATCH WITH **DREADNOUGHT TILES**

Many contemporary self build designs now extend the roof covering down into the walls – a crisp, modern interpretation of tile hanging. This project by architects Mohsin Cooper features tiles from Dreadnought's Rustic range. The design incorporates a box gutter, although Dreadnought can also supply mansard tiles for the transition.

KEY SUPPLIER **DREADNOUGHT TILES** | **01384 77405** | **www.dreadnought-tiles.co.uk**

Heating & ventilation



In order to maintain a comfortable, efficient home, we installed Total Home Environment's Passivhaus-certified heat pump ventilation (HPV) and hot water (HPW) solution. This cost £31,845 to install back in 2019; a similar specification would come in at £39,743 today.

The HPV combines a heat pump with mechanical ventilation and heat recovery (MVHR) to deliver all-in-one space heating, air handling and an element of cooling in summer. In some rooms, the ceiling terminals feature an electrically-heated backup, which can boost temperatures on cold days."We now sometimes recommend an infrared heating panel or ceiling film instead, as they can be cheaper than heated terminals," says Clarissa Youden, associate director at Total Home Environment. "In double-height spaces, we might suggest a small amount of UFH to provide heat at the level you need it. A thin strip of electric UFH near large areas of glass can be a good idea, too. It will hardly be used, but prevents surfaces reaching the point (around 16°C) where you start to feel the cold if standing nearby."

In most of the house, the ductwork is hidden in wall and ceiling voids, but we left it exposed in the basement to demonstrate what goes into this kind of system. Some visitors were surprised by the size of the ducting around the HPV unit. This was partly our own fault, as we moved the plant room location late on, so the planned left-hand unit had to become a right-hand one, adding extra turns. The cost of living crisis means our bills have been a bit higher than expected, but the system runs reliably and very quietly, and there's no doubt it's a great choice for high-performing homes.

The HPW 300 is a hot water cylinder with integral heat pump. It delivers more than enough hot water (c 1,000L per day) for the whole house, and powers three small zones of Nu-Heat UFH in the bathroom, WC and ensuite.

NEW FROM **TOTAL HOME ENVIRONMENT**

The PKOM 4a Compact Service Unit combines MVHR, a heat pump for efficient space heating and cooling, and another heat pump for 212L of hot water - all in one box. It's a great option for meeting Net Zero targets in well insulated, airtight small homes and flats, and features advanced corrosion protection for minimal maintenance.

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KEY SUPPLIER **TOTAL HOME ENVIRONMENT** | **0345 260 0123** | **www.totalhome.co.uk**

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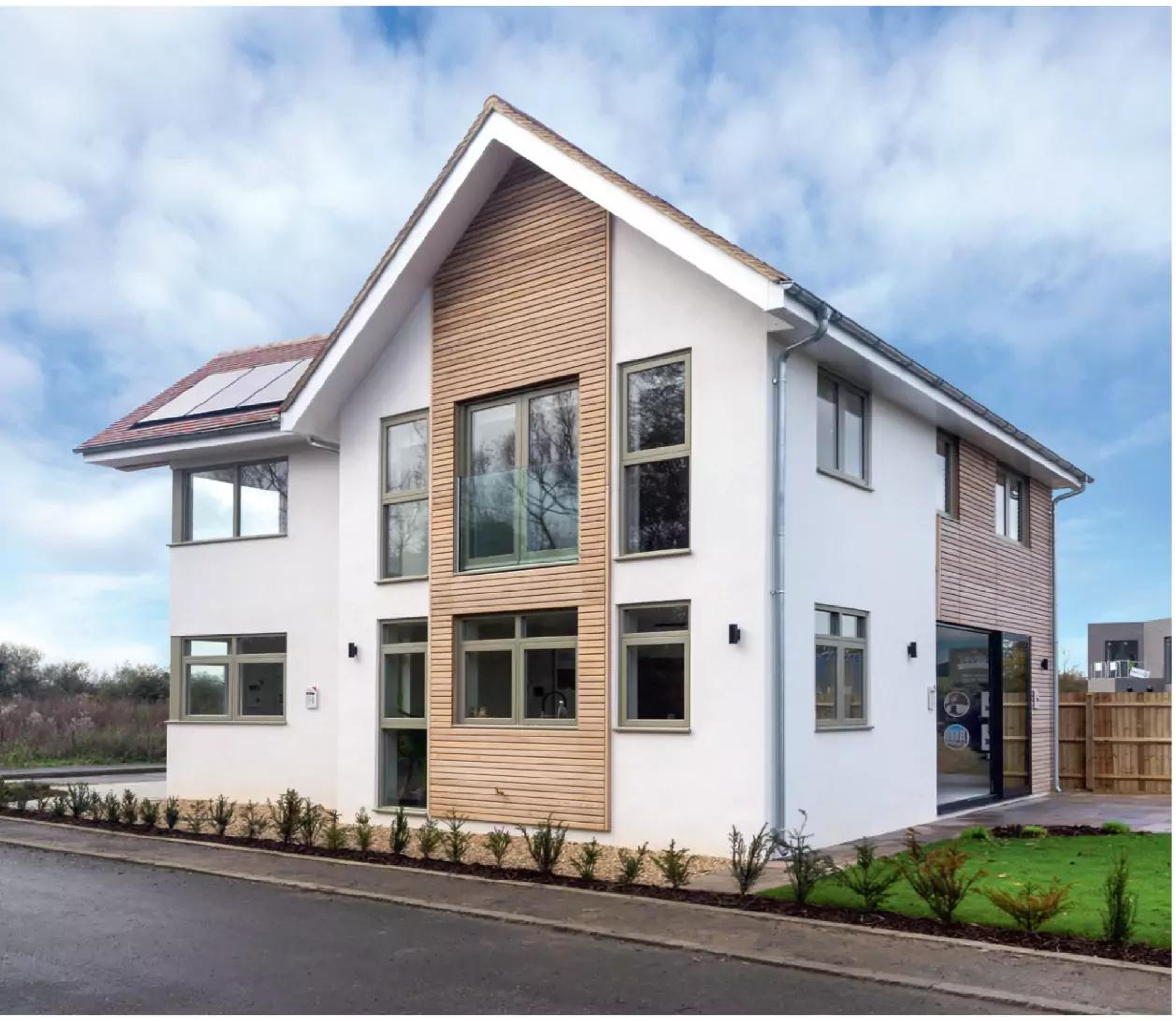
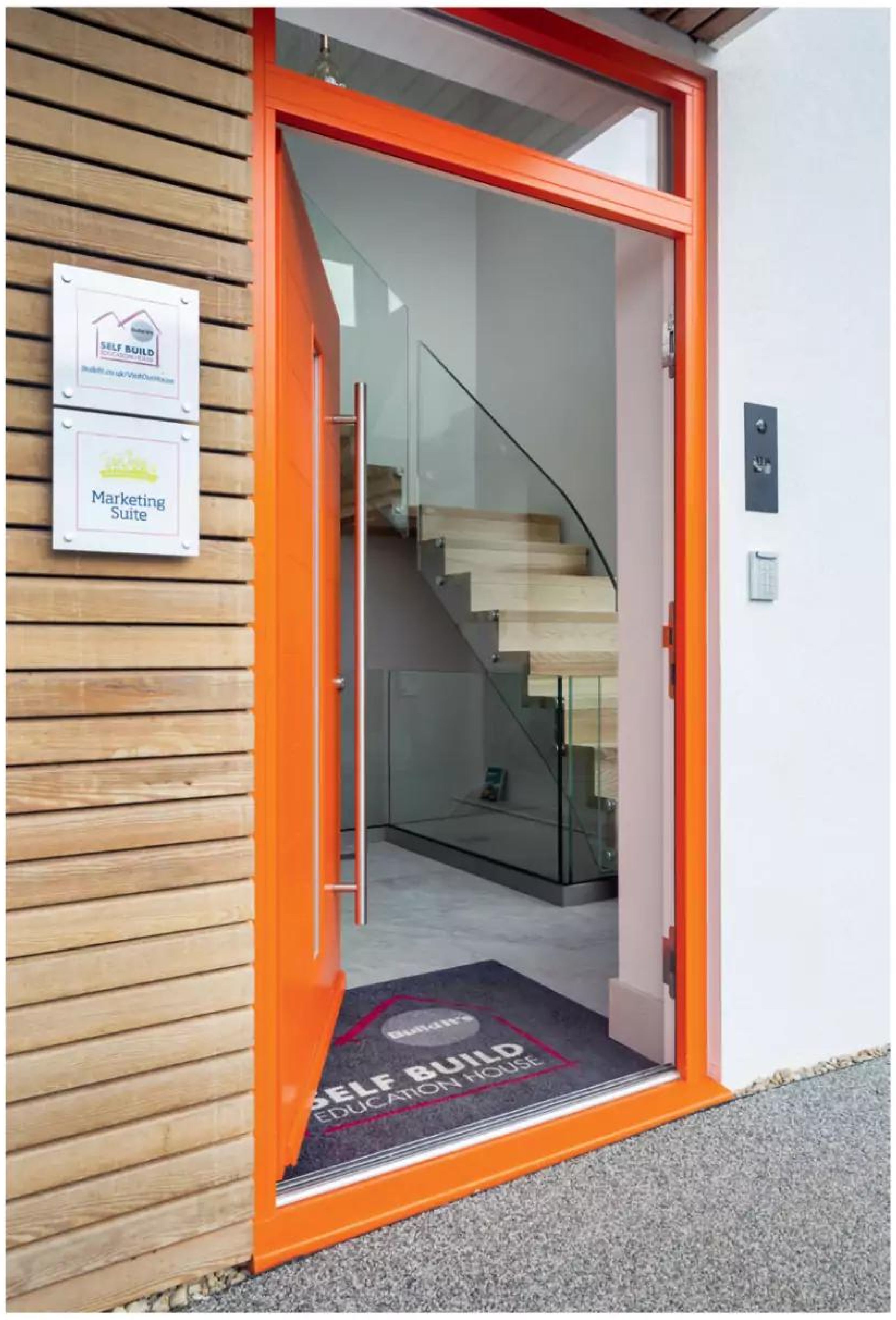




Windows & front door

Choosing windows is a critical decision on any project. Not only do they need to look the part, but they must also support your goals for the performance of your home – and not just from an energy efficiency perspective. Functionality, longevity and daylight levels are all key considerations.

We selected Kloeber to supply and install our double-glazed timber windows and French doors, which achieve a U-value of 1.3 W/m^{2}K. Fitting the windows was a slick operation, and we were able to order most of them – with the exception of the apex glazing in the double-height hallway – based on the structural plans. They're specified in a range of configurations to suit their location: fixed panes in the vaulted area; casements across both storeys; top-hung units for access in strategic locations, such as over kitchen countertops. Kloeber also provided the FunkyFront door (timber with a steel core) for our contractor to install. This is in a statement-making Traffic Orange (RAL colour 2009).

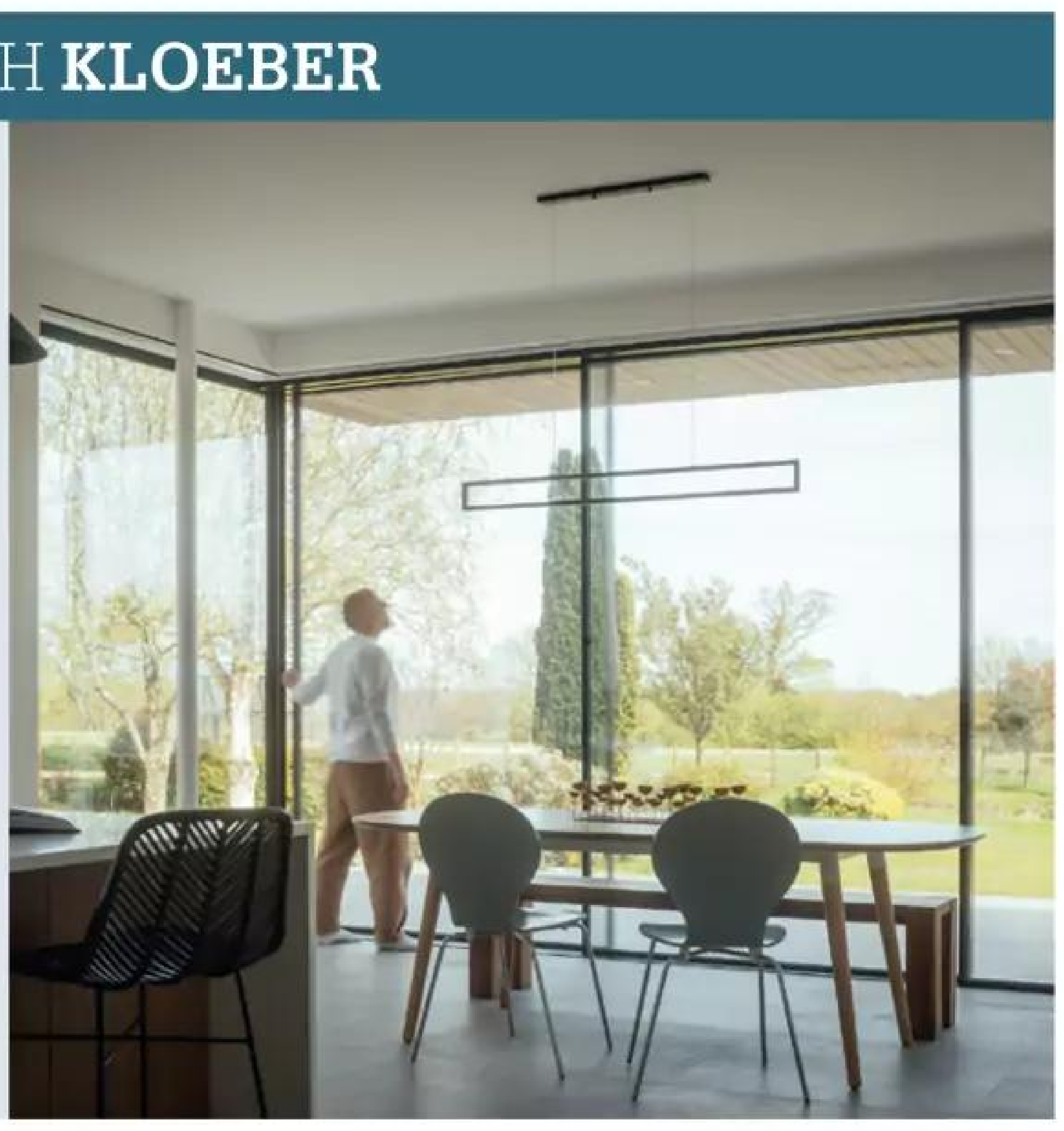
We're delighted with all our choices. In particular, the three-coat microporous finish on the windows and French doors is still pristine; we've not had to repaint anything yet. "On average in the UK, we'd expect it to be at least five years post-install before you need to do anything to a factory-painted window," says Kloeber's Matt Higgs. We chose RAL 7034 (yellow grey) as the finish for the frames, which we'd do again, as it adds a bit of warmth compared to standard options like anthracite. The interior finish is white on the ground floor and in the apex windows, and clear-lacquered pine upstairs.

Relatively little has changed with the product itself since we installed it. "We now allow for greater cill projections as standard, because the latest updates to Building Regulations mean you that need to fit windows quite far back into the opening," says Matt. "We might also recommend a solar control coating on the glazed corner gable, due to the new Building Regs Part O (a 2022 addition that aims to reduce overheating), depending on how the space is to be used." Our solution for overheating risk was to install an electric Velux rooflight at the top of the triple-height hallway, which gives us purge ventilation if we do ever need to cool the zone.

Our windows, French doors and the FunkyFront door came to a total of £27,500 including installation. "Rises in materials prices mean you can expect to pay another 30% in 2025," says Matt. "For anyone concerned about maintenance, the timber windows and doors in the Build It House will probably need virtually nothing doing to them for another five years or more."

TREND WATCH WITH **KLOEBER**

Many self builders and renovators aim for a seamless connection between indoors and out – hence super-slim sliders are high on their wish lists. Kloeber's Uberslide system is its fastest-growing product range, designed to minimise framework while maximising glazing – setting the tone for a light-filled home.



KEY SUPPLIER **KLOEBER** | 01487 740044 | www.kloeber.co.uk

Modern smart home

With the exception of the attic, the Build It House is a fully integrated smart home. This means we have centralised control over the living environment – with the functionality to set lighting moods, manage the heating system, control shading and more from intuitive control panels or a smart device. There's even an 'all off/on' function on the switch next to the front door, with pre-programmed security and welcome home scenes.

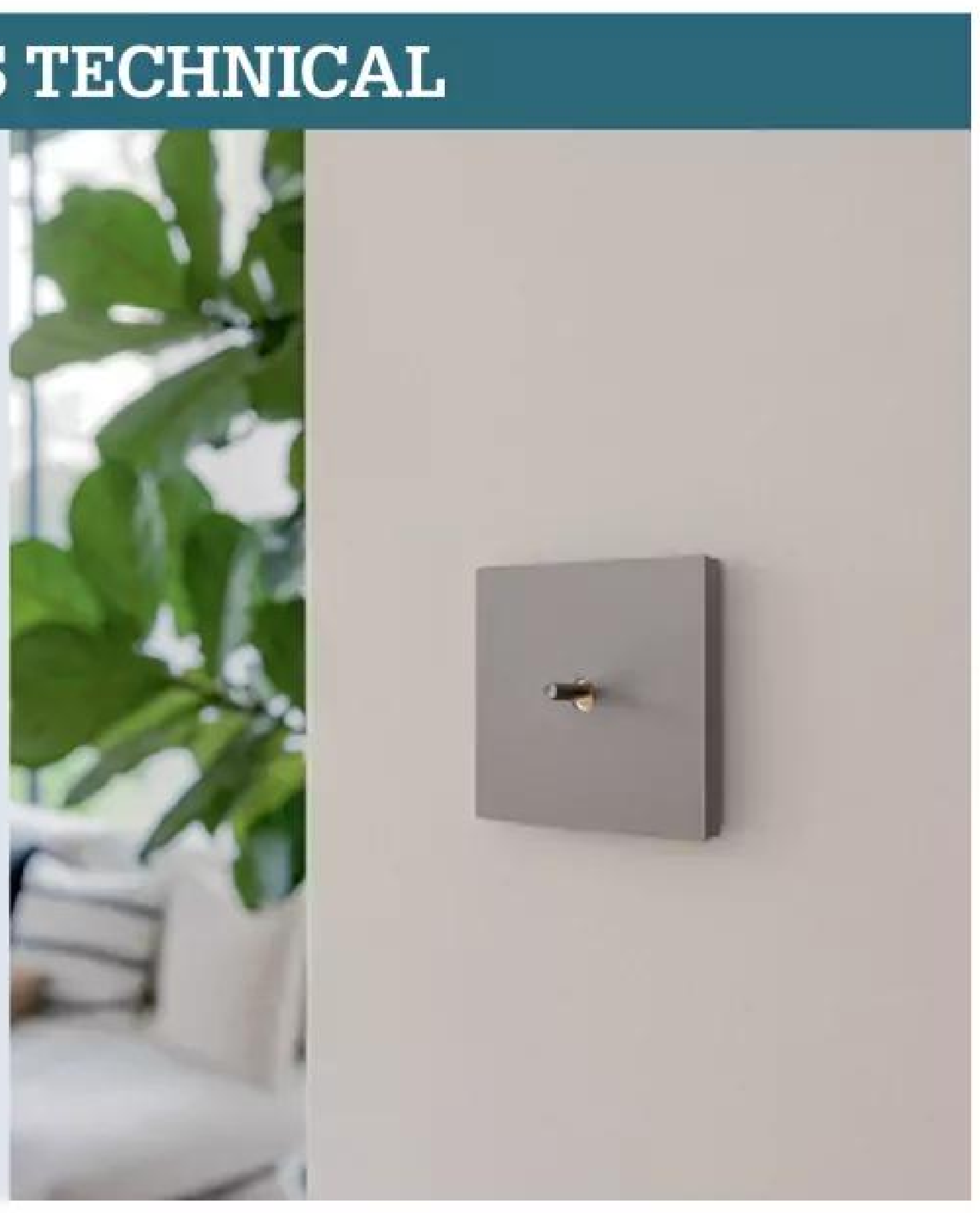
We specified the Niko Home Control system from Moss Technical, which is reliable and popular with visitors, and offers free updates to enhance and add new functionality – without needing to bring in an engineer. So, it gets better with age. "That's the beauty of a Niko smart home," says Andy Moss from Moss Technical. "If there's an update, you get a notification on the app. Accept it and, instantly, you've got that capability."

One difference in 2025 is you no longer need Niko's Digital Black control screen in each heating zone. "You'd still go with this for open-plan areas, but not in secondary bedrooms, bathrooms etc," says Andy. "Every switch now has built-in temperature and humidity sensors, so separate thermostats and controls aren't required." There's also more choice over switch styles, including toggle and rocker versions, as well as the option for robust Zigbee wireless switches – so it would be easy for a future owner to add smart functionality to the attic, too, creating a hybrid wired-wireless solution.

Our bells-and-whistles smart home system cost £47,233 back in 2019, including installation (£10k) and almost £15k's worth of hidden ceiling speakers (the bass on these is very powerful, which trades need to know!). On the Niko system itself (£12,779 of our spend), prices have gone up by about 15% since 2019 – although we'd probably pay a similar total today, as we'd replace some of the Digital Blacks with cheaper smart switches.

NEW FROM **MOSS TECHNICAL**

A contemporary twist on traditional Bakelite switches, the Niko Toggle is available in six stylish finishes. An optional, hidden-until-lit LED feedback provides a soft warm glow around the toggle to indicate whether your switch is turned on or off.



KEY SUPPLIER **MOSS TECHNICAL** | **01656 746766** | **www.homecontrol.uk.com**

Cladding & wall finishes

Settling on the right palette of external materials can be tricky. We selected a mix of Siberian larch in a 68mm rainscreen cladding profile from Russwood; along with a warm white K-Rend silicone render, direct-applied to the ICF to minimise wall build-up. The render cleans off easily and our worries about rainwater splashes proved unfounded.

For the larch, Russwood recommended a factory coating of SiOO:X to accelerate the weathering process – and it's been a great success. We've not suffered from the 'teenage years' you can get with timber cladding, and it's close to reaching its final patina. We've since learned we could have applied SiOO:X to the exposed glulam ridge beam, too, to help ensure it weathers in tandem with the larch cladding.

Due to Russia's invasion of Ukraine, there's a ban on Siberian larch imports and UK stocks are limited. "It's a beautiful, highly durable product, and there's not a direct substitute," says Russwood's Morgan Corrieri. "We work with clients to understand what they like about Siberian larch, such as figuring or durability, and identify the best alternative for their needs."

For the Build It House, our pre-coated Siberian larch cost £61.50/m^2 in 2019 (supply only). Popular alternatives include Russwood's Architect Select larch, available in 92mm x 24mm profiles and starting from £75/m^2; and its Thermopine product, supplied in 92mm x 20mm profiles and starting from £60/m^2 (prices are with a SiOO:X finish).

Most of our cladding is in simple sections on a single elevation, using an invisible fix system. Russwood recommended the Fassendenclip solution for this, which has performed impeccably. At the north-west corner, we opted for a wraparound effect, so we could showcase the difference between standard and hidden fixings. Both still look flawless!

NEW FROM **RUSSWOOD**

Russwood's Architect Select larch won Best Cladding Product at the 2024 Build It Awards. The judging panel was impressed by the company's development of a genuine alternative to Siberian larch for the UK market, offering natural durability and an attractive vertical grain appearance at a competitive price point.

KEY SUPPLIER **RUSSWOOD** | **01540 673648** | **www.russwood.co.uk**

Sliding doors

To achieve that coveted house-to-garden connection, we chose a high-quality, slimline theEDGE2.0 sliding door from IDSystems, which operates just as smoothly as the day it was first installed. A premium product, theEDGE2.0 is still very popular today, although there have been a few changes.

We were able to specify a U-value of 1.4 W/m^{2}K, but current Building Regs require 1.2. “To achieve this, we would now use Cuin glass for theEDGE2.0, which is double glazed but has a transparent polymer interlayer to increase thermal performance,” explains IDSystems’ Edward Stobart. In 2019, our twin-track theEDGE2.0 system with standard laminated glass cost £11,344. With an upgrade to Cuin glass, today we could expect to pay £13,455.

One minor regret is that we didn’t specify an external key lock cylinder, as the only other entrance to the house is the front door. However, as Edward points out: “One of the reasons for this was security during the build. If the site had been on a well-populated part of Graven Hill, with fencing on all three sides, maybe it would have been different.” Another factor is that our design includes a plant room and utility in the basement; if this was on the ground floor, we’d have automatically added a door.

A stylish and functional feature of our interior layout is the SF20 internal glazed room divider from IDSystems (£2,750 back then; £4,100 today), separating the sitting room from the kitchen-diner for a versatile floor plan. “Internal glazing was an afterthought for many people back in 2019 but, since the Build It House, is now a massive part of new build and extension projects,” says Edward. “The open-plan dream is different to reality. Internal room dividers retain that bright open feel, with the option for separate zones.”

NEW FROM **IDSYSTEMS**

The SF22 internal sliding glass partition is based on the popular SF20 system that was installed in the Build It Education House. It has been adapted to incorporate an outer frame and horizontal bars to mimic the look of traditional Art Deco-style glazed screens.

KEY SUPPLIER **IDSYSTEMS** | **01603 408804** | **www.idsystems.co.uk**

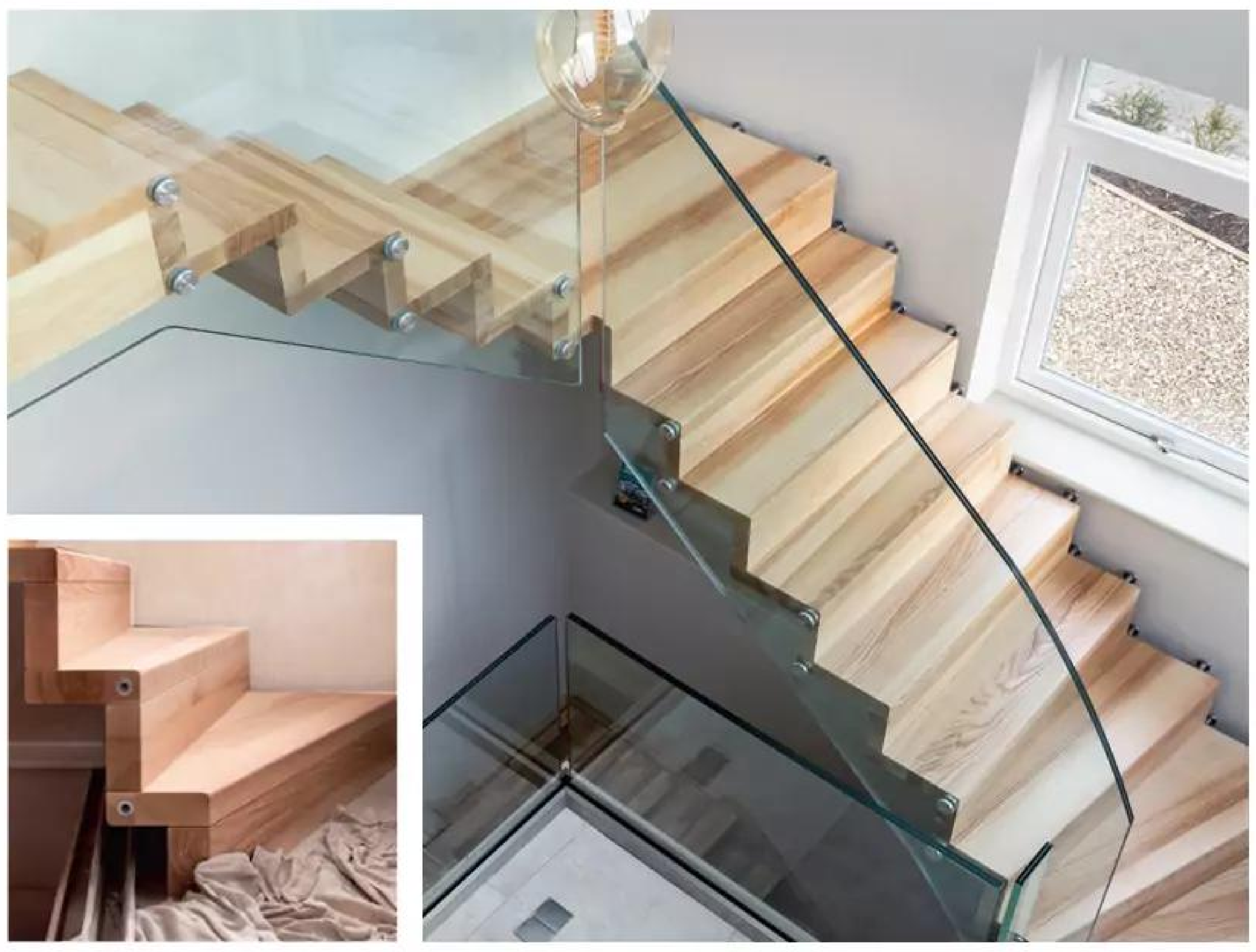
Feature stairs

Choosing the right staircase is a big deal for any self build project. Our triple-height vaulted hallway deserved a centrepiece that would wow visitors, so we needed a supplier who would go the extra mile in creating the perfect result. We found that in Meinolf Kloepping from Kloepping TSS, who suggested a contemporary, solid ash feature flight. More affordable than oak but just as textural and durable, the ash sets the tone for our interior decor choices. We worried about wear and tear, but the very minor scratches a timber stair develops over time simply add patina.

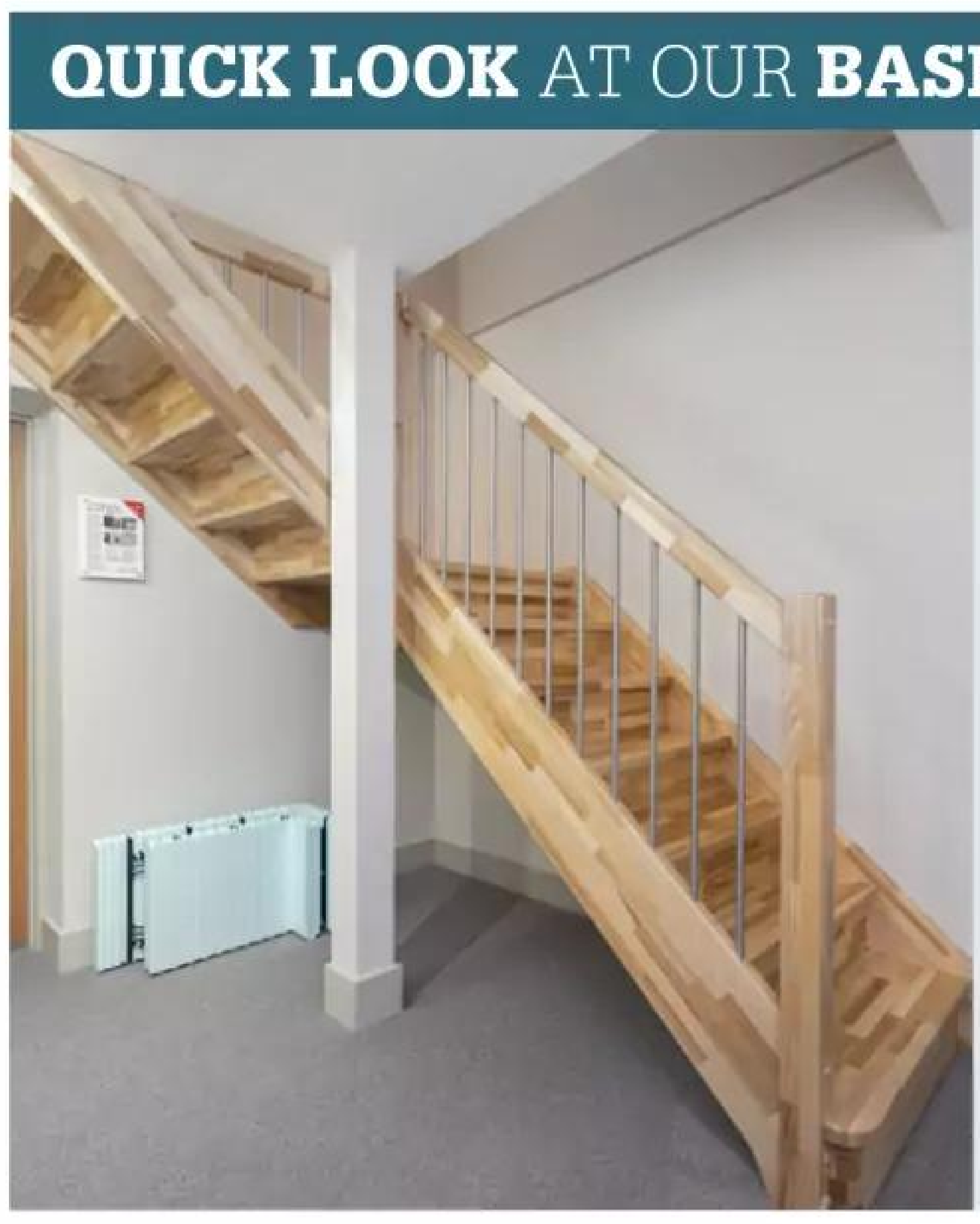
Our design achieves a floating effect, with solid treads and risers, which are anchored into the walls using steel support blades and bolts. We have combined this with a structural glass balustrade to preserve the sense of light and openness in this wow-factor space. The two winders at the foot of the flight are a neat touch, suggested by Meinolf, creating a more ergonomic feel when walking down into the hallway.

The process was precision personified. It was the first time our builders had seen laser levels on site for a staircase install, but with a feature flight, accuracy is vital to ensure it fits right and looks the part. Kloepping took care of the design, engineering and install, with Meinolf’s schematics stretching to six pages per flight (see box, left, for info on our basement stair).

Fitted for £15,600 in 2019 (excluding our galleried landing), a similar design would cost something like £17,000-£20,000 today, depending on final spec. We later added an ash handrail to the lower section of the flight, to suit some visitors to the house. “It’s a personal preference,” says Meinolf. “Some people feel uncomfortable with just glass; but we had two layers of 10mm-thick toughened, laminated glass with a 1.5mm foil. This is fine for building control; even if one breaks, the other will stay in tact.”



QUICK LOOK AT OUR **BASEMENT FLIGHT**



A variation on the theme, this stair uses finger-jointed ash for the treads and risers, which is cheaper than solid wood and gives a distinctive modern look. Timber handrails and steel spindles preserve the flow of light. It cost just under £6,000 in 2019.

KEY SUPPLIER **KLOEPPING TSS** | **01622 541077** | **www.kloeppingtss.co.uk**

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Build It House project partners

The key to a successful project is bringing the right partners on board. We chose to work with these companies for our very own self build:

Graven Hill
Golden Brick Plot
www.gravenhill.co.uk

ICF Supplies
ICF Construction System
www.icfsuppliesltd.co.uk

K-Rend
Silicone Render
www.k-rend.co.uk

Self-Build Zone
Insurance & Warranty
www.selfbuildzone.com

Alchester Tiles
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www.alchestertilesandbathrooms.co.uk

IDSystems
Sliding Doors
www.idsystems.co.uk

Lapd Architects
Architect
www.lapdarchitects.co.uk

Screedflo
Acoustic Screed
www.screedflo.co.uk

Amina
Invisible Speakers
www.aminasound.com

JB Kind Doors
Internal Doors
www.jbkind.com

Moss Technical
Niko Smart Home
www.homecontrol.uk.com

SIPCO
SIPs Roof
www.thesipcompany.com

Dreadnought Tiles
Roof Tiles
www.dreadnought-tiles.co.uk

Jotul
Stove
www.jotul.co.uk

Nu-Heat
Underfloor Heating
www.nu-heat.co.uk

Sureset
Resin Driveway
www.sureset.co.uk

Drewett & Hunt
Main Contractor
www.drewettandhunt.com

Kloeber
Windows & Front Door
www.kloeber.co.uk

Rainclear Systems
Guttering
www.rainclear.co.uk

The Granite House
Kitchen Worktops
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Hard Rock Flooring
Floor Tiles
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Kloepping TSS
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FINDING TRADES

Sourcing trustworthy people for your build will make all the difference to delivering a high-quality home. Emily Batesmith looks at how to find and vet the right team of professionals for your project

Whether you're looking to employ a main contractor to take the reins on your self build project or are planning to source individual trades yourself, even the most hands-on self builder will need to call in specialist help from time-to-time. A quick Google search will present you with many options, but how can you be sure to invest in the right build professionals?

Where to look

While errors in plans and drawings are fairly easy to address without serious consequences at the design stage, issues with building work caused by so called cowboy builders are trickier (not to mention costly) to resolve. Bad builders will cost you in both precious time and money, so making sure you've got a great team on the ground of your project is crucial. So where do you find great trades who will do the work well?

Personal recommendations from people you know and trust that have had building work done is a brilliant resource. Asking professional connections you've already made on your build – your design team, local merchant or other key suppliers – for suggested trades who they've worked with is also a great option.

"Another good way to find local builders is to drive around your area and see what work is going on," says Jules Chard, head of client relations at CLPM (cl-pm.com). "If the site is clean and tidy and the contractors are friendly, that's a great first step! Speak to the resident when the contractors have gone home to see how they're getting on with them."

There are plenty of tools online that allow you to search for local builders – but be aware that not all online trades listing websites invest in actually vetting trades properly. Use quality search tools such as The Federation of Master Builders (FMB) 'Find a Builder' service, which allows you to source professionals who have been vetted and inspected.

If you're stuck for recommendations, a post on your local Facebook community page asking for plasterers, carpenters etc, will probably be inundated with replies.

Rifling through the options can be a minefield as the responses could be from trades themselves rather than a happy client; but at least they're showing an interest. Just be sure to do your due diligence!

Vetting a potential builder

Whichever way you make contact with your builder, remember that first impressions and chemistry are important. It's best to speak with them on the phone (rather than just over email) and always meet them face-to-face before signing them up.

"Google local trades and check out their references – ask to visit examples of their work," says Jules. Live projects are a great insight into a builder, as you can see how they are currently working, rather than an older build. If they are a limited company, look them up on the Companies House website – you'll be able to research the listed directors and note if any previous businesses throw up red flags.

Comparing quotes

Your project route is relevant for the quotes you'll be getting in from trades. You'll need to make sure the full list of works is included so you can compare prices like-for-like. Without enough info from you, it's impossible for a builder to quote accurately, and they may underspecify or add to the price to cover the risk.

Do you want one main builder to oversee everything? They would look after hiring individual trades (sub-contractors), materials deliveries, project timeline and health and safety – ie the full tender pack.

Alternatively, managing the project yourself means that you're looking for jobbing brickies carpenters, plasterers, plumbers, electricians etc. Individual trades will also require detailed information from you – including what products and sundries you're supplying, and what they'll be providing – to quote accurately.

It's a good idea to call in and compare at least three quotes, and to ask consistent questions to aid your comparisons. "Give the trades as much accurate info as possible in a format where you can compare like-for-like, eg an Excel spreadsheet," says Jules. "Give Building Regs drawings, exact specifications etc. Don't make changes once the build starts. These "variations" have unknown and steep financial implications."

Put the details you're providing in writing to ensure you're on the same page. The same goes for the quote – get a detailed price breakdown in writing. Clarify whether you're being given a quote (the agreed fee you'll pay if no changes are made) or an estimate (an approximate calculation and not necessarily what you will be charged) to help you budget accurately.

"Confirm if VAT is included and clarify payment schedules," says Jeremy Gray, head of external affairs at the FMB. "Ask for costs to be separated into labour and materials. Ensure that the builder will enter into a written contract before work begins, which protects both parties and clarifies expectations."

Securing the deal

When you've decided on your builder, it's a good idea to run a full credit check (which will cost a small fee) to see if there are any warning signs such as credit risk or court judgements. When it comes to lead times, be aware that a good tradesperson is going to be booked up. "If they are immediately available, there is a reason," says Jules. "Now, it could be that they have had a project cancelled, but equally it could be that they are looking for work and not finding it. We always recommend booking in your trades at least six months in advance. Line them up! And make sure you have a project programme – show it to the trades and work with them to schedule them in."

And when you're happy to go ahead, you'll need a formal contract – whether you're using a main contractor or a series of individual trades. "Always have a detailed, written contract in place once a quote is accepted," says Jeremy. "This protects both you and the professional by clearly outlining the scope of work, terms and conditions, payment schedules and a process for managing changes or disputes."

ISTOCK_NUTTAPONG PUNNA

WHAT INFO SHOULD YOU PROVIDE TO GET AN ACCURATE QUOTE?

The more detail you give to your contractor, the more accurate the quote you'll receive. Here's the information the FMB (fmb.org.uk) recommends giving to your potential builders:

- Detailed plans or drawings with calculations and measurements.
- Clear expectations about the work, including who is responsible for what.
- Anticipated timescales and deadlines.
- Planning permission details and any known issues.
- A clear statement of your budget.
- Consistent information to every builder you approach, so that quotes are comparable on a like-for-like basis.
- Be aware that it is not unusual for some builders to charge for a detailed quote.

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Left: This cantilevered woodland build features the Passiv Innovations factory-insulated efficient timber frame system from Timber Innovations. The project is finished in shou sugi ban charred cladding

CHOOSING A STRUCTURAL SYSTEM

With a wide range of building methods to choose from, finding the perfect one for your self build is an exciting part of the journey. In this guide, we break down the most popular options to help you find the best fit for your dream home

The system you choose for your home will have implications on practically every level of your self build. A lot comes down to your project profile: do you want great energy performance out of the box, for instance, or are there particular design features that might indicate one system over another? Do you need to get the house to a dry shell quickly, or are you happy with a more conventional build programme?

From the familiarity and solidity of brick and block to the ultra-fast build speeds and super-airtightness of structural insulated panels (SIPs), there's something to savour in every structural system. Here, we summarise the key considerations for each of the major players.

TIMBER FRAME

Superb thermal performance, speedy construction and design versatility are just a few of the benefits that entice self builders down the timber frame route. What's more, standard timber frame detailing delivers high levels of insulation and excellent airtightness. "Timber is also sustainable," says Matthew Vincent, director at Daniels & Vincent. "It's the only zero carbon, non-toxic building material. It creates less CO2 to build with timber frame compared to other construction methods."

Design basics In terms of the planning design, you can use an architect or develop the scheme via a package home provider. Either way, the supplier will engineer the structure – so bringing them on board early will maximise the potential of their system and deliver the best value.

Once the design is finalised, the individual building components are fabricated in the manufacturer's factory and delivered to your site for erection, with a typical lead time of around 10-12 weeks. One of the big advantages of this process is that the components that form your walls, floors and roof are precision-engineered under factory-controlled conditions, resulting in pre-determined levels of performance and super-fast build speeds.

While a lot of design decisions need to be made early on, due to the pre-manufactured nature of these systems, in reality you'll want to do this whatever solution you're using, as developing the construction details is essential for meeting Building Regs and ensuring your builders know exactly how everything fits together.

Frame options Broadly speaking, timber frame solutions can be divided into two categories. The first of these is known as an open-panel system, where storey-height panels are manufactured and erected with one face left open – so the insulation and services can be installed before the panel is sealed with plasterboard. "This type of frame suits someone who wants to do as

MAXIMISING TIMBER'S ADVANTAGES

DAVE LOOMIS
architectural designer at Fleming Homes, shares how to harness the full potential of timber

Using engineered joists such as open web joists or I-joists in timber frame construction allows for large spans without the need for load-bearing walls. This enables the design of big, open interior spaces. Floating (non load-bearing) walls can also be incorporated into the design, allowing a flexible interior layout.

Timber cladding provides a natural warmth and beauty that's hard to replicate. The detailing of joints and corners can create stunning results. Timber frame construction often uses this type of external finish to clad its framework, but one of the benefits of this method is its versatility. Natural stone, brick, render or metal standing seam cladding can all be used together or alone, allowing timber builds to span a variety of architectural styles, from English farmhouse to stunning ultra-contemporary builds.

The internal walls of timber frame homes also have another great benefit. A timber stud is only required every 600mm, which allows the void to be filled with sound deadening insulation. Whilst it's not an aesthetic or visual feature, it can really impact the quality of the internal space when settled with a full household.

Above: This Nord 2 is part of JML SIP's pre-designed range of Low Energy SIP homes, featuring stylish contrasting exterior cladding

much as they can on site, such as insulating the walls," says Jay Hubbard, managing director at English Brothers. "It's lower cost but doesn't give the benefit of insulation being installed in a closely-monitored environment."

Closed-panel systems come with the insulation pre-fitted to your specification (from standard insulations to natural products), reducing labour requirements on site. "This usually comes with a vapour control layer and vertical timber battens to create a cavity for services to be installed," says Jay. Theis approach delivers superior airtightness and confidence over insulation coverage.

"A timber frame company will typically supply all the external and internal walls and the first floor structure, which might be of metal-web joists," says Simon Orrells, MD at Frame Technologies. "They'll also provide roof solutions, with roof trusses or loose (site-cut) roofs as appropriate." One detail to check is whether any steelwork needed to support the timber frame is featured in your supplier's quote. "This can be an expensive surprise if you find it's not included," says Simon.

Construction Once your structural kit is delivered to site, the frame for a typical home can be assembled quickly – often within as little as two weeks, depending on complexity. With the weathertight house shell in place, your first fix trades can get on with jobs inside the house while the exterior cladding is being fitted.

"If you want to be more hands-on with your build, there are plenty of opportunities to get involved once the frame is watertight," says Darren Jarman, managing director at Lowfield Timber Frames. "You could undertake tasks such as insulating (for open-panel systems), airtightness taping and plasterboarding." Many self builders like the weathertight shell route, as it means you have a specialist delivering the main structural works, and you can then project manage builders or trades from there.

Costs "For a standard timber frame, a good rule of thumb is to budget £250-£300 per m^2 to design, supply and erect the timber frame, excluding insulation," says Simon. Bear in mind that various factors can drive this sum up – especially if you're adding in complex design details, for instance, or aiming for Passivhaus standards.

STRUCTURAL INSULATED PANELS (SIPs)

SIPs are a great-value option for high-performance builds and those with certain design characteristics. In the same way as closed-panel timber frame, the lightweight system is prefabricated offsite in factory conditions, then assembled on site to form the superstructure of a build, including the walls, roof and floors.

The panels are made up of a core of high-quality rigid foam insulation, sandwiched between two facings of structural timber – usually oriented strandboard (OSB). They're very strong, with no internal studwork, enabling the panels to have one continuous core of built-in insulation, which helps deliver excellent thermal and airtightness performance.

Designing with SIPs Double-height ceilings, open-plan spaces and liveable loft rooms are high up on many homeowners' wish lists, and SIPs can achieve these wow-factor features with ease. Their innate strength makes the structure less susceptible to shifting and easily accommodates open-plan spaces. Even wider areas and large glazing apertures can be achieved when coupling the system with glulam engineered timber or steel.

SIPs can also give you more internal space than traditional construction methods. "The panels are thermally efficient and airtight. Their core is made up of insulation, meaning the wall thickness required to meet Building Regulations is notably thinner – in the region of 100mm," says Pete Samson, founder of Ecologic SIPs. "You can even achieve Passivhaus performance while retaining a good amount of floor space in your plan."

Some SIPs suppliers offer architectural design services as part of the package, while others work on a supply-and-install or supply-only basis. "It's not essential that an architect has worked with SIPs before for them to design your self build home. However, it is beneficial," says Pete. "Architects with SIPs experience will design to maximise its advantages, such as vaulted ceilings. They will also understand the key junction details where the panels interact with the foundations or finishes of a build." If your architect hasn't worked with the system before, your supplier should be able to help bridge the gap when translating the design to the structural drawings.

Key considerations As well as the roof, walls and floors, your SIPs kit will also include the membranes stipulated in the technical design. While the panels are being manufactured, it's wise to get the groundworks sorted. A typical SIPs house shell can be erected in one to two weeks, giving similar benefits to other prefab timber systems. "The superstructure can be assembled up to 60% quicker than a brick build," says Pete.

Highly prefabricated timber frame and SIPs systems can offer the opportunity to order the glazing based on the drawings, rather than waiting for the openings to be built (with the exception of complex elements, such as apex windows). "This means your windows and doors are on hand and ready to be installed as soon as the superstructure is complete, saving you weeks or even months on the schedule," says Pete.

Costs With both the structural capacity and the thermal envelope bundled together in one neat, panelised system, you gain the benefit of confidence over your project schedule and can keep labour costs to a minimum. SIPs is rapidly gaining popularity in the UK, and although it's considered a premium option at the higher end of the price scale, it's important to consider whole-life costs when planning your self build. SIPs homes are well worth considering if you're looking to achieve Passivhaus or similar low-energy standards with your build, for instance, and your investment in the superstructure being repaid through ultra-low energy bills over time.

OAK FRAME

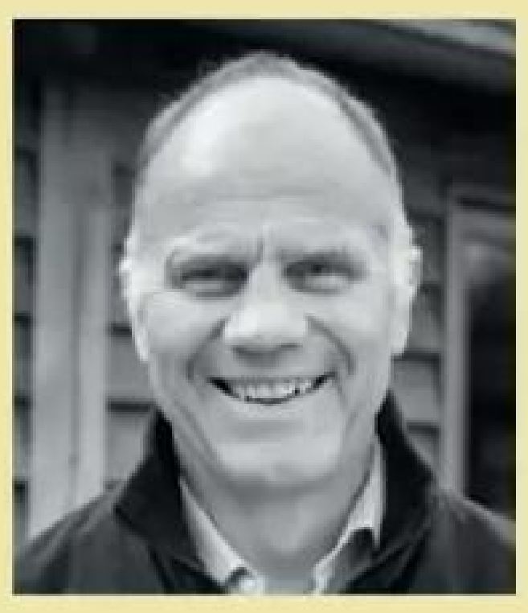
Oak is prized by self builders for its ability to add character to a home. Specialist oak home providers offer a range of services – from supplying just the frame to providing full design, shell packages or complete turnkey solutions.

The frames are prefabricated in workshops or factories, ensuring high-quality craftsmanship. Once delivered to site, your oak skeleton will be quickly assembled, then encapsulated to form a well-insulated, airtight and energy-efficient shell – ready for cladding and finishing.

The benefits Oak framing is a time-tested yet thoroughly modern system, providing a quality assured, sustainably sourced and well-insulated structure that can last for centuries with little maintenance. It can be used to craft different architectural styles, whether you're aiming for a classic country cottage or ultra-modern home.

Certain techniques can be applied to emphasise the material in line with your preferred aesthetic. For example, traditional designs might feature plenty of exposed beams and supports to create a rustic feel, while more contemporary designs might use oak more sparingly, focusing only on key timbers. "The detailing of the frame can also be adapted to fit your design – having traditional pegged joints or adding portions of steelwork will all have a big influence on the ultimate feel and appearance of the building," says James Lock, partner at Roderick James Architects.

EXPERT VIEW CARING FOR AN OAK HOME



TIM CRUMP
founder & chairman at Oakwrights, explores how to best look after your oak frame build

Q I've heard oak frames move – can this cause issues?
Splits and shakes appearing in your frame are a natural occurrence and part of the beauty and charm of building with oak. They aren't signs of a possible structural problem; they're simply a result of the frame settling and strengthening.

Q What's the best way to clean and care for the oak?
All oak frames will gain marks and dirt during the building process and potentially throughout their lifecycle. It's virtually impossible to avoid but very easy to solve. If you like the weathered, beaten look you can have your frame sand blasted. This cleans away any marks and raises the grain of the oak, giving a characterful and slightly beechwood look to the oak.

If you prefer the clean lines of a planed finish, then oxalic acid and sanding is the way to go. This should be carried out by professionals. Oxalic acid is brushed onto the oak frame and acts like a natural bleach, washing away dirty marks. Once this process has been completed, the frame needs to be washed with clean water and, once dry, any stubborn marks can be removed by sanding.

Q Are there any fire safety considerations?
Luckily, oak has an excellent char rating. As the outer surface of the beam or post burns, the charcoal that's produced protects the timber at its core. For standard Building Regulations your frame wouldn't require treatment – but there are fire retardant coatings if desired.

Building with oak can also give you the opportunity to incorporate some real wow-factor features into your project's design. Bright open-plan spaces, statement mezzanines or grand stairwells beautifully showcase the oak frame, while expansive glazing will not only maximise natural light levels but also frame scenic views. "Large glass panels work effectively alongside oak frames, creating a light-filled space that showcases the natural material. Try using glazing with minimal framing if you want the structure to remain the star feature," says Emma Hamilton, marketing manager at Oakmasters.

Sustainability & energy efficiency Beyond the production phase, an oak frame home continues to contribute to sustainability throughout its lifespan. "Oak helps to sequester carbon as it grows, locking it in for the duration of the building's lifetime," says Dan. This combination of low emissions during production and the long-term carbon storage benefits makes oak an excellent choice for eco-conscious self builders. You need to make sure to choose a supplier that sources its materials from sustainable, well-managed forests.

In conjunction with a quality encapsulation system, oak is able to deliver great insulation and airtightness values – and can even be used to achieve Passivhaus standards. "It's challenging but is possible with careful design. Incorporating advanced insulation, airtightness detailing, and energy-efficient glazing alongside the frame can help to bring a project up to certified specifications," says Emma. If you're achieving a good standard of energy performance

Left: A structural skeleton, by Carpenter Oak, awaiting encapsulation to deliver a well-insulated, weathertight shell

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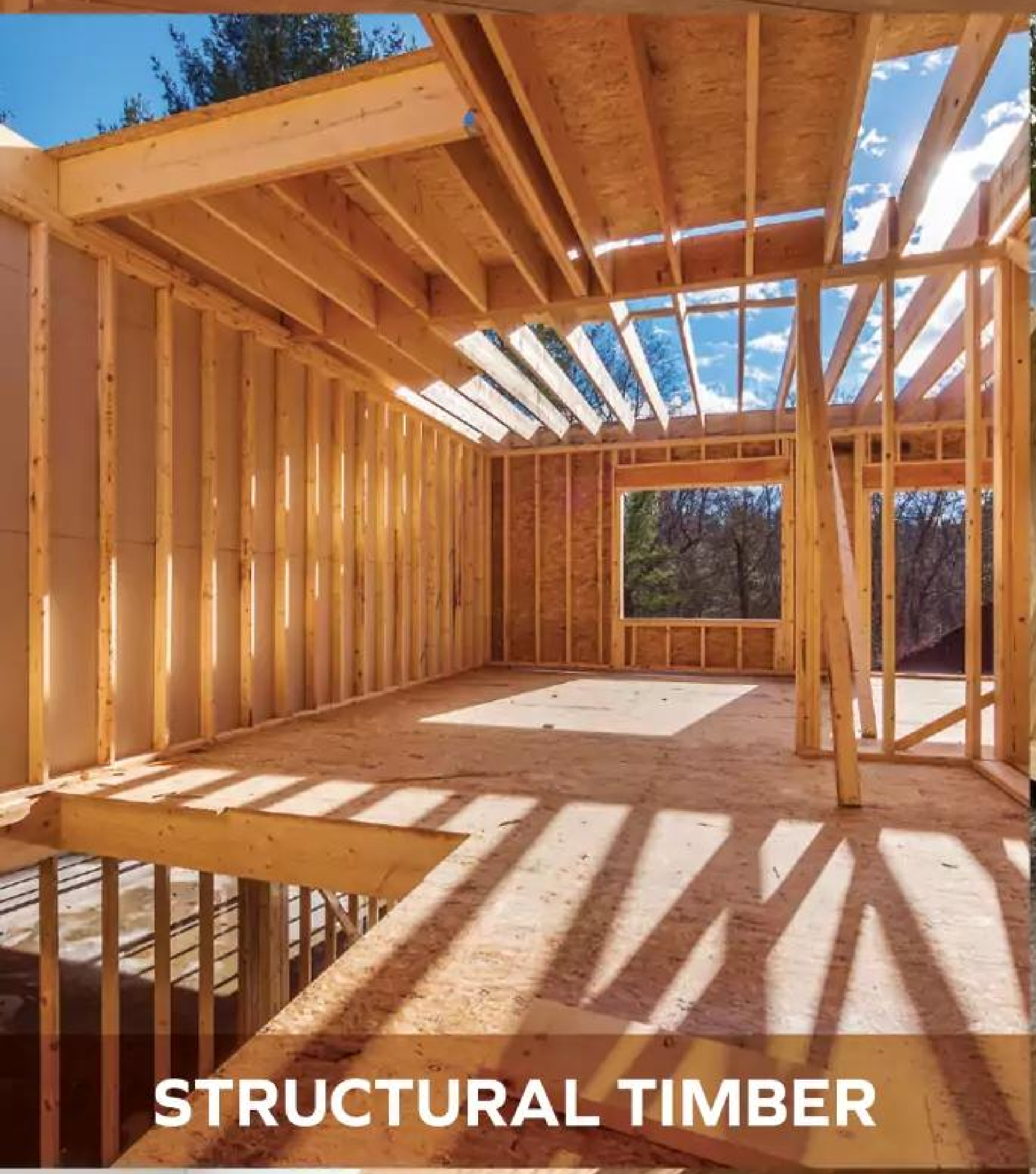

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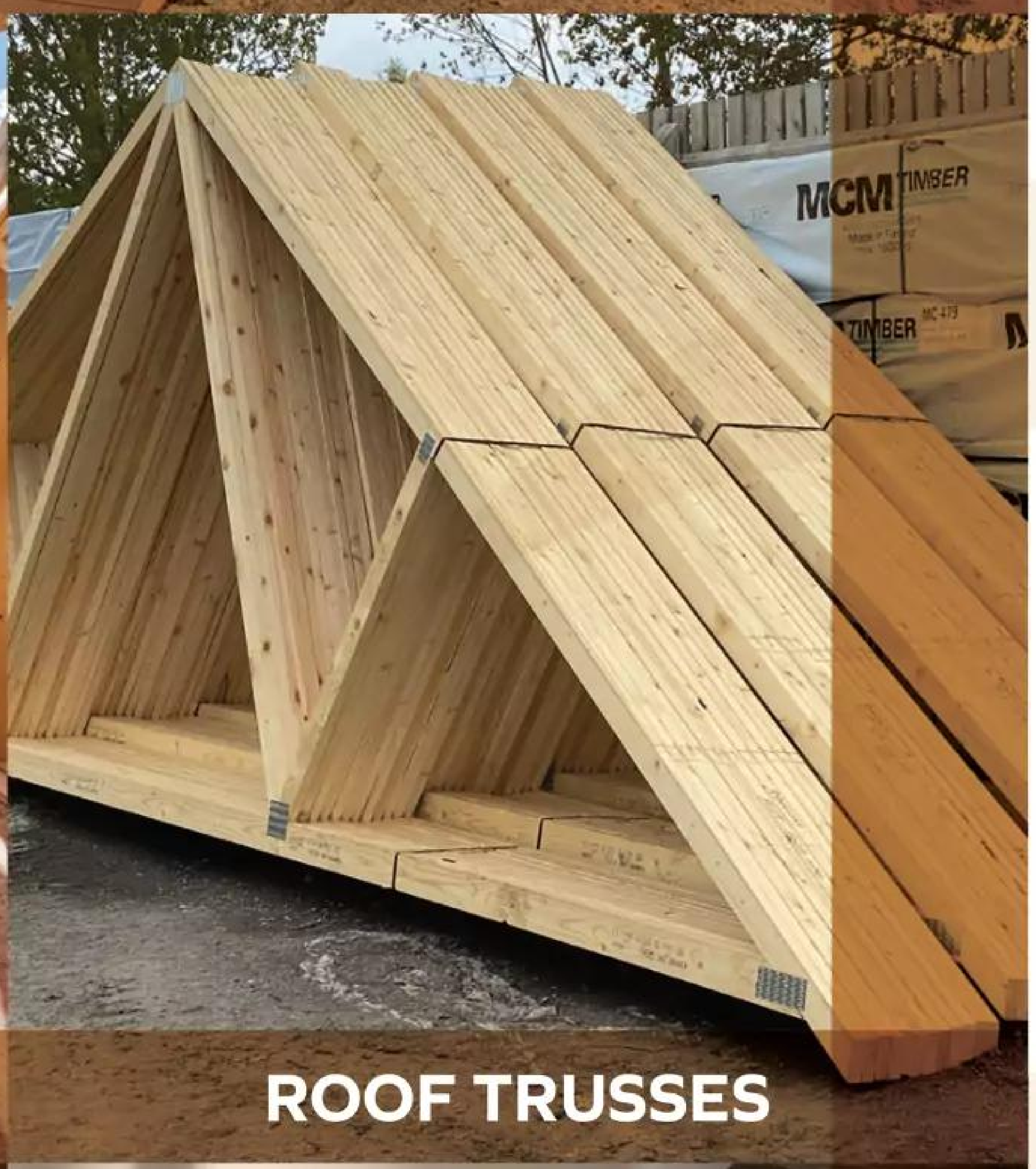

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and airtightness, you'll typically need to specify a mechanical ventilation with heat recovery (MVHR) system for a constant supply of fresh, filtered air that ensures a healthy living environment.

Costs While oak can be a more expensive route than other methods, it does offer great value. "An oak frame can be erected in just a few days and be made watertight within weeks, meaning you are paying less in labour costs and minimising delays caused by the weather," says Dan Wilson, project consultant at Carpenter Oak. Overall, while the upfront costs may be higher, the finished product will ooze quality and tends to command higher asking prices – making it a smart investment.

INSULATED CONCRETE FORMWORK (ICF)

Insulated concrete formwork, or ICF, is a modern construction system that offers a host of benefits, especially for those who are looking to create a robust, low-energy home. This building method uses a series of hollow blocks or panels, typically made from expanded polystyrene with interlocking profiles, to form the walls of the superstructure, both above and below ground. As the blocks are stacked, steel reinforcing bars are added to the core, before the formwork is braced and filled with a ready-mixed concrete. This is then repeated floor by floor, and once the concrete has cured, you're left with an airtight, super strong and pre-insulated structure.

Designing your project While ICF is built around rectangular blocks, this doesn't mean you're restricted to a linear design. "The formwork can be assembled in any shape or architectural style," says Robin Miller, managing director at Beco Wallform. As the concrete can be reinforced with steel bars, it's even possible to create stunning cantilevers and other wow-factor features.

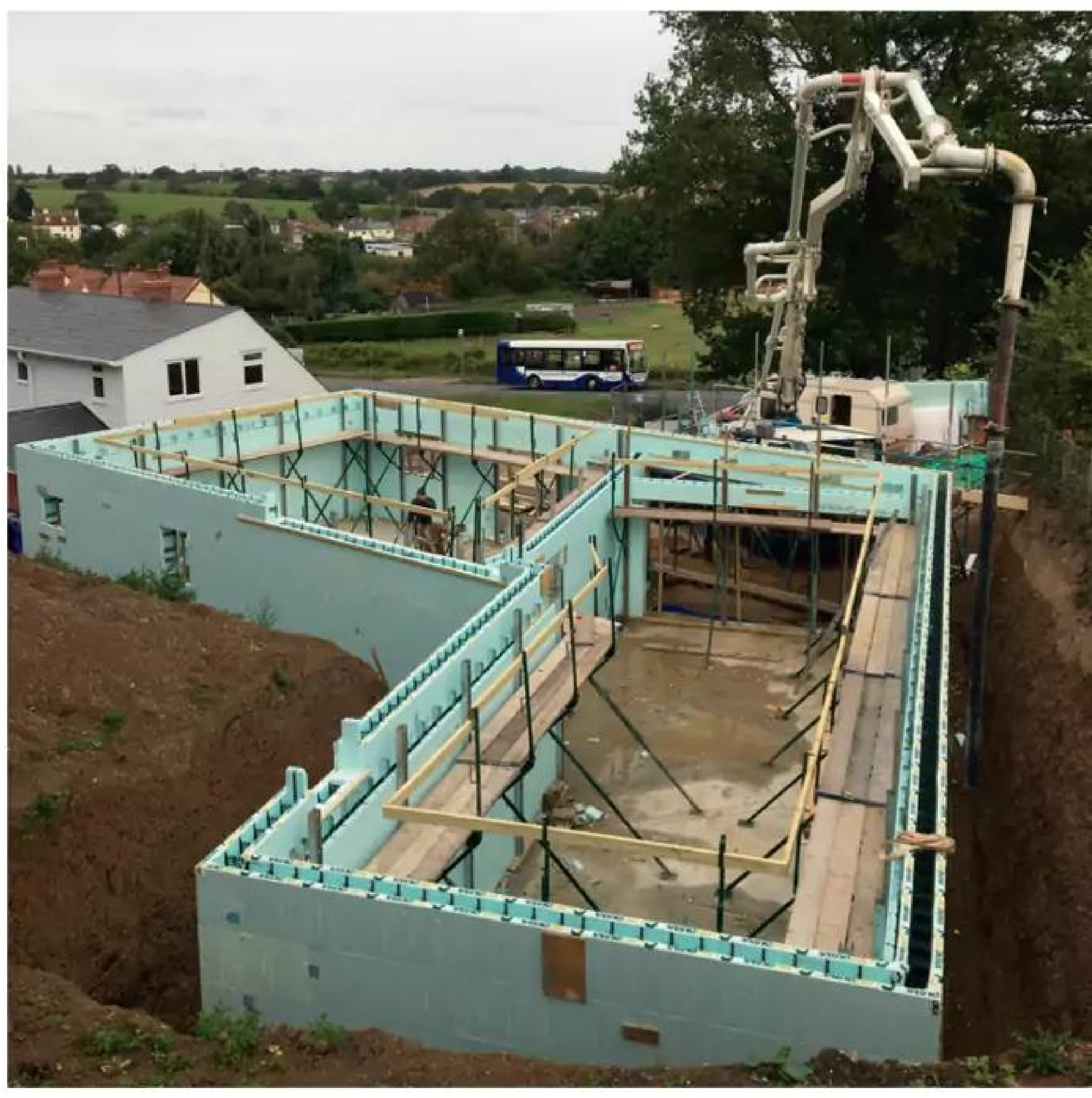
"Depending upon the system used, striking curves are also achievable," says Ian Armstrong, director at Arco2 Architecture. ICF's ability to hold expansive glazing, mould generous open-plan living areas and work in tandem with heavyweight floor structures such as beam-and-block, means you can realise a high-quality interior environment.

Low-energy homes The system's pre-insulated walls and full-fill continuous concrete pour offers excellent U-values and airtightness for your home. Due to its mixture of polystyrene blockwork and solid concrete, you get a twin skin of insulation and plenty of thermal mass. Combined with the interlocking profiles minimising air leakage, ICF is a great choice for anyone aiming to achieve Passivhaus standard. For sustainably-minded self builders, all that polystyrene and concrete may be an important consideration – but lower-carbon concretes are becoming more readily available, and there's also the option to switch to woodcrete or hempcrete blocks.

Left: Designed by LA Hally Architect, this striking Bauhaus-inspired family home in Hampshire is constructed from an insulated concrete formwork system from ICF Homes, which ensured quick construction on the restricted site

Installation The polystyrene blocks are lightweight, easy to handle and simple to cut with a standard handsaw. Plus, they don't need mortar to be set in position. The ground floor formwork for a standard, rectangular house can be installed, reinforced, braced and poured with concrete in as little as a week – ready to move on to the next storey. Most self builds, of course, are a bit more complex than this, but ICF should still deliver great construction speeds on site, allowing follow-on trades to start quicker, too.

Although this seems like a simple process, precision and skill are incredibly valuable on an ICF build. A good contractor will take particular time and care over bracing the blocks before the concrete pour, to ensure there's no risk of bulging or bursting. The concrete must also be flowed into position continuously, leaving no voids or honeycombing – otherwise your home will not be as insulated, airtight or sturdy as it can be.



Above: A basement build by ICF Supplies, using Nudura blocks, prior to the concrete pour

Costs ICF does sit at the more premium end of the market – but, as with products like SIPs, if your project profile fits the bill, it will offer excellent value for money. Benefits such as continuous insulation, high thermal mass, soundproofing and built-in strength and durability can all add value to the right project.

MAKING ALTERATIONS TO AN ICF HOME

Concrete is extremely strong once poured and set – so if something was to go slightly awry and you need to change it post-pour, this can add considerable delay and cost. So, just as you would with any prefab system, it's vital to nail construction details early, and make sure that they're being correctly realised on site.

Many ICF builds use a C35 concrete mix, which is around four times as strong as standard blockwork. Cutting into this requires hard labour and specialist machinery, and this is exactly where costs can start to add up. Internally, you would typically want to switch to studworks for non-loadbearing walls, enabling flexibility for future layouts. Stud internal walls can be structural, if designed as such, or you could use standard blockwork (which is much thinner than ICF, saving a few centimetres of internal space).

Ultimately, any construction project benefits from good planning, and it's much more efficient to ensure you are happy with the position of services (which should be ducted out prior to the pour), window locations, room configurations etc before the concrete fill goes ahead.

CAVITY WALL BLOCKWORK

This tried-and-tested build method offers plenty of scope for original, show-stopping designs. Within the UK there are a huge number of construction firms who have plenty of experience in working with masonry systems, plus it's familiar to most homeowners, too – making it easy for self builders to get to grips with project planning.

The conventional approach is to build up an inner skin of blockwork, which does the loadbearing job, with an outer leaf of attractive brick or rendered/clad blockwork – connected back via wall ties. The gap between is partially or fully filled with insulation. Construction proceeds up to first-floor level, at which point the internal load-bearing walls are installed. Timber joists or a concrete floor are then added, and building continues upward to the roof.

Design flexibility For some people, the thought of a brick and block home might conjure up images of a fairly conventional property, complete with a simple floorplan and partitioned living arrangement. But this isn't the case. Modern masonry offers the scope to create contemporary, open-plan homes thanks to loadbearing beam-and-block floors, which can span significant distances without supporting walls to break up the space.

Above: This new house used approximately 65,000 imperial-sized London Yellow Stock bricks from Imperial Bricks. For this particular project, the units were laid with 'clean' faces, as the brick faces are reversible

Additionally, working with smaller masonry units – rather than large modular panels – offers greater flexibility on site. While major changes to the original architectural plan should be avoided to prevent adding additional time and cost, it's much easier to adjust internal walls or window openings during construction than it is with panelised systems, where all of the components are pre-manufactured to exact specifications.

Construction considerations Blockwork is a slower build process than other methods such as timber frame. Plus, as it is a site-based route, it is also at the mercy of the British weather. Alongside this, the cement mortar that is used to glue together the brickwork needs sufficient time to set, meaning there are limits as to how many courses can be completed in a day.

However, if you are looking for a speedier build, there are modern thin joint masonry options, which have the potential to reduce construction times. These systems offer a variation on traditional blockwork, using a glue-like adhesive to bond the units together. This is much thinner than conventional cement, meaning it dries much quicker and offers improved airtightness to the structure.

Thermal benefits of masonry One of the biggest benefits of blockwork is its ability to store passive heat gains during the day and release it back into the building when it's cooler, in the late evening and overnight. When used effectively, alongside a good insulation and airtightness strategy, this can create a much more comfortable and predictable heating schedule.

In the self build sector, there's been a gradual shift towards more prefabricated methods that can be sold with guarantees over insulation coverage and the performance of the house shell. But blockwork can still be an appealing choice, offering a cost-effective and familiar build – and it's absolutely possible to achieve excellent performance levels, right down to Passivhaus. You'll just need fairly thick walls and attention to detail from the on-site trades to reach this standard.

Blockwork is also a natural partner for brick external finishes, offers easy fixing points for hanging internal fixtures and fittings, plus its heavyweight nature is ideal for providing built-in sound proofing.

How sustainable is masonry? Longevity is an important part of this equation, and products like clay bricks will last hundreds of years. Even once a building is demolished, the units can be cleaned, packed and resold. Alongside the environmental benefits of re-purposing these bricks, some self builders love the look of reclaimed masonry as it adds character to their projects.

There are also modern clay block systems, which are used in combination with thin-joint mortar techniques and a direct-applied render finish. This retains the durability, thermal performance and aesthetic appeal associated with traditional masonry, alongside the added benefit of significantly lower embodied carbon.

Many suppliers are striving to make their manufacturing processes greener, such as by increasing the amount of recycled material they work with. Materials for a masonry scheme are also readily available from local sources, too, cutting down the overall embodied energy of the project. Using local brick finishes can be a boon for planning, as it will help your home mirror the local vernacular.

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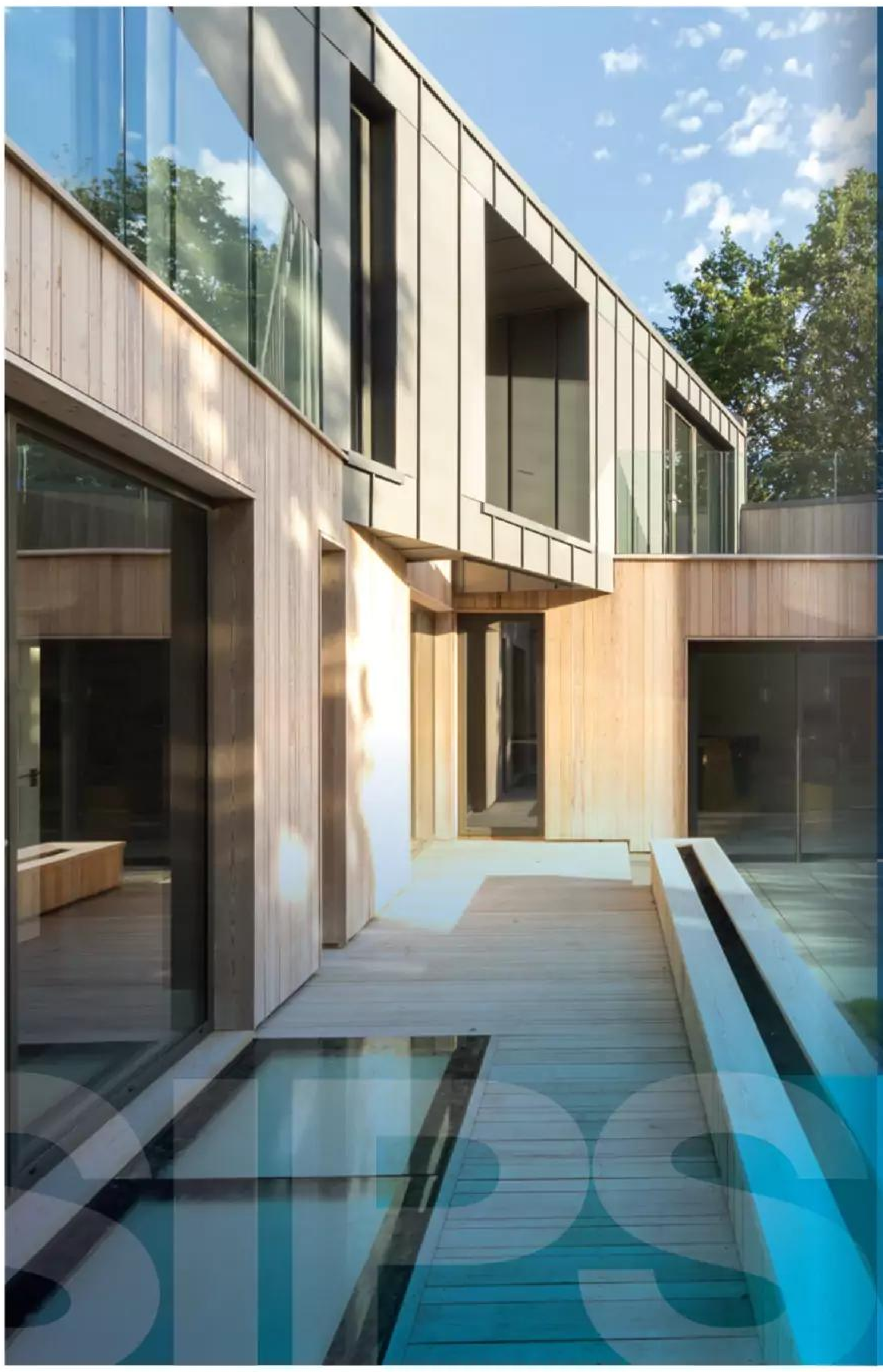

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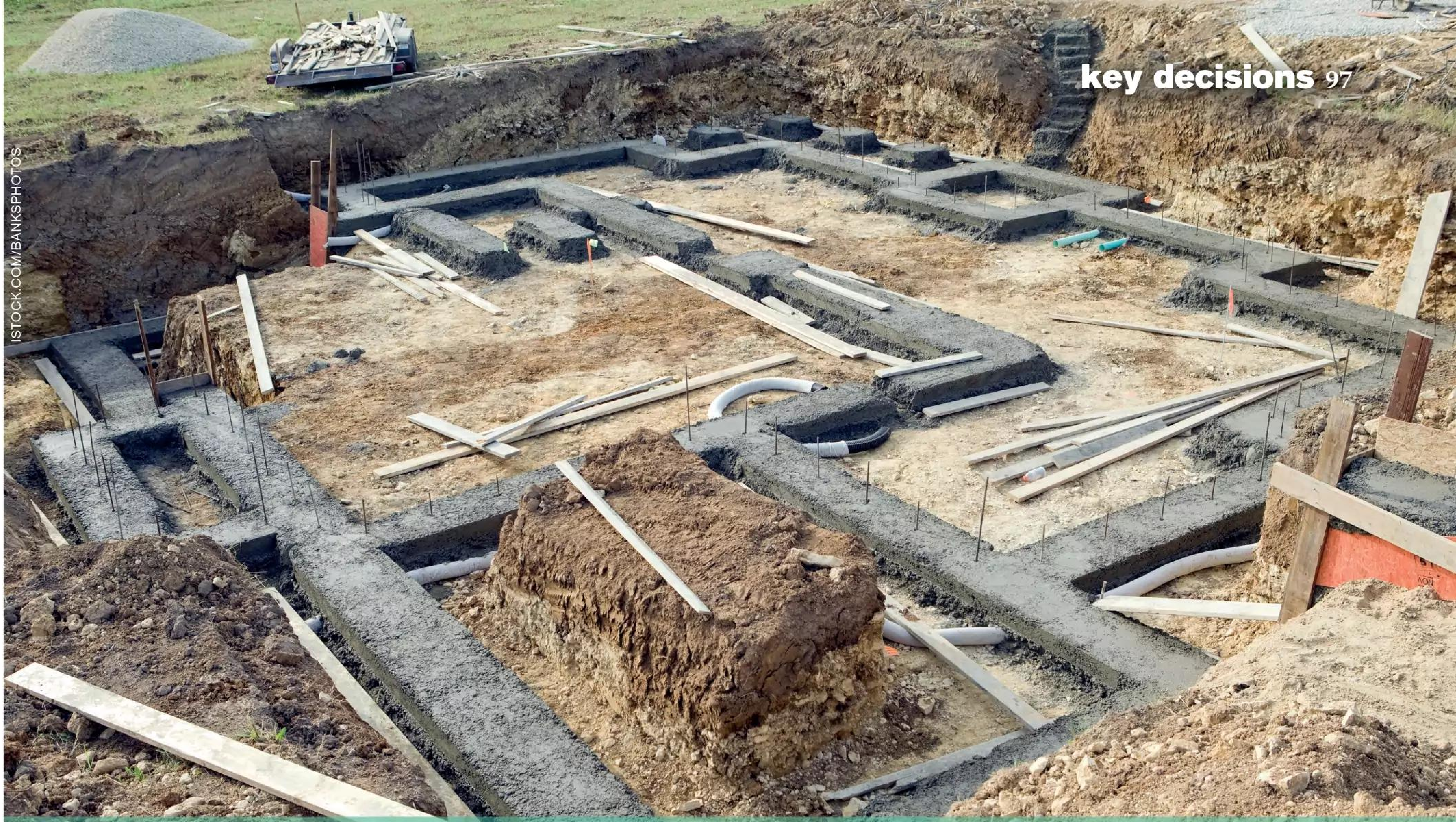


Building foundations

Your chosen build system and plot's soil type will influence the style of foundations suitable for your project. Anna-Marie DeSouza explores why careful planning and a strong base is essential for creating a safe, durable home

Above: Trench-style foundations are most common on self build projects. This shows the layout of a sunken lower ground floor

House foundations are a crucial part of a self build project, establishing a solid, long-lasting base that will support your property for generations. The architectural design of your home will influence the most appropriate foundation choice, as will soil conditions, the weight and load distribution of the building and its size.

Understanding your site

Knowing the ground conditions of your plot is essential when choosing suitable foundations for your home. Across the UK, soil types can differ greatly not just between regions, but even within short distances. That's why it's important to evaluate the characteristics of your soil, such as how well it supports weight, its potential for movement and how it handles water drainage.

Obtaining a soil survey, where you're given a comprehensive report of your ground type by a geotechnical engineer, will help your structural team understand what building foundation is best for your project. There is no one-size-fits-all approach. The most common soil types in the UK include:

- **Clay soils can shrink and swell with changes in moisture, foundations must be designed to prevent the risk of subsidence or heave.**
- **Sand & gravel will typically offer good load-bearing and drainage, making it suitable for a range of foundations.**
- **Peat is high in organic matter, this type may not provide the required support for your home without suitable reinforcement.**
- **Solid rocky ground can offer a stable platform but you may find it more challenging and expensive to excavate.**

Selecting a foundation type

Once you have a clear idea what type of soil you are working with, your structural team can get on with designing the best building foundations for your project – balancing performance and cost-effectiveness. Here are the four most common options:

1 STRIP FOUNDATIONS

These consist of continuous concrete footings, set into excavated trenches. They're often used for brick and block builds, but can suit other systems. Strip foundations work well in soils with adequate bearing capacity and low risk of movement, where they will generally be the most economical option.

2 TRENCH FILL FOUNDATIONS

Quick and popular with self builders, this involves excavating trenches and filling them with concrete to create a continuous footing. As with strip, their depth is determined by the ground conditions and building loads.

They can be used in similar ground conditions to strip foundations where the risk of movement is low. Steel reinforcement (rebar) can be placed in the trenches to enhance the strength if required.

3 RAFT FOUNDATIONS

A raft consists of a large, solid concrete slab that extends under the entire footprint of a building. It effectively floats on the ground, spreading the load over a larger area compared to traditional foundations.

The thickness and reinforcement of the concrete slab are designed to accommodate the building's load and distribute it evenly to prevent settlement or differential movement. Raft foundations are often chosen when the site has challenging ground conditions, such a high water table or a history of subsidence.

4 PILED FOUNDATIONS

Piled foundations are an engineered solution, typically specified where you would otherwise need very deep (and therefore costly) excavations to reach strata that can support the building load. Piling involves driving or drilling vertical columns (the piles) into the earth to reach deeper, more stable ground.

They usually require heavy machinery for installation, so site accessibility must be considered. While it doesn't come cheap, piling may still prove cost-effective if it enables a site to be developed.

Below: Mains drainage is the easiest solution for most self builders – but make sure it is installed correctly to avoid costly complications later down the line

ISTOCK.COM/MIKEUK

Getting your foundations right

It doesn't just matter to you that these early stages are done correctly; it matters to the local planning authority that your home is built in the position shown on the approved plans. Even when dimensions haven't been specified, local planning enforcement officers can scale off the drawings to check that your home is where it should be.

Distances to boundaries and levels are both important from a planning aspect, because of the issues relating to overlooking and overshading neighbouring buildings. You and your builder are the only people who will check the setting out at the start, so take the time to get it spot on. With pegs driven into the corners and chalk lines sprayed on the ground between them, you can start digging the foundation trenches.

The centre line of the foundations should be marked to avoid confusion. The wall positions should be set out with pegs and string lines later on, when the concrete for the foundations has been poured.

Drainage

Getting the correct level is also important when laying out the drainage system. The system falls (the gradient of the install) should be determined from the bottom of the pipe, which is known as the invert level. The trenches must be carefully dug to the right depth and gradient to avoid extensive amounts of bedding having to be incorporated to provide support for the pipes.

Using any deep drainage trenches for running in other services also makes good sense. Gas, electric and water cables all have to be provided at your expense, so laying them in position now will save you time and money later on. Getting the supply companies to connect them when the house is complete can be a very slow process, so it is best to get the job registered, priced and booked in well ahead to avoid delays later. A water or air pressure test should be carried out before drains are backfilled to ensure all the joints are watertight and everything works.

EXPERT VIEW THE BENEFITS OF ADDING A BASEMENT

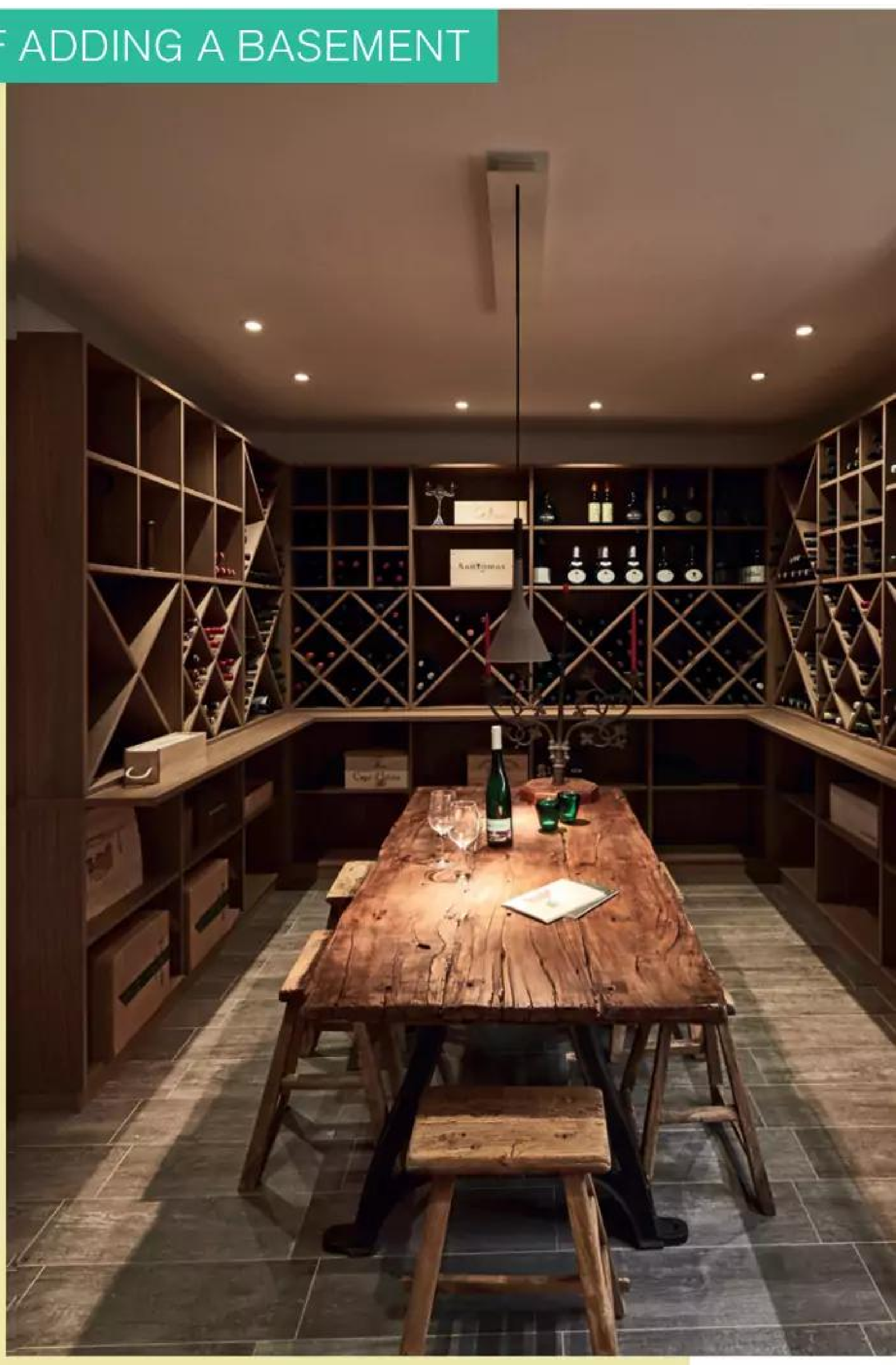
MARK STEVENSON

explores why adding a subterranean level is a good investment for your self build

In the right circumstances a basement can be a cost-effective way to add space and improve the home's functionality without eating into garden space. However, due to their expense they aren't really viable for lower-value houses. For the budget conscious, below-ground rooms only make sense where savings can offset the premium that the addition will cost.

A basement can be an efficient and cost-effective design choice for certain soil types. On sites with poor ground conditions, deeper foundations are often required anyway. If piling or deep trench fill foundations are needed, adding a below-ground structure can be a relatively small extra cost for a lot more living space.

While they do require careful planning and specialist construction techniques under British Standard 8102:2022, modern waterproofing systems have made basements a viable option, particularly on less complex sites where the home's value can cover their construction cost. Whether you are looking to have an extra bedroom, a home cinema, or simply want to keep noisy plant equipment out of your main living areas, a basement can be a great option that improves design flexibility, and helps to create a quieter, more efficient and comfortable home.



Above: Why not be creative and build a basement with a bit of wow factor? Glatthaar Keller constructed this luxurious, bespoke wine cellar, ensuring it was completely waterproof

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MASTERING ROOF DESIGN

Looking to create a stylish and energy-efficient roof for your home building project? This guide looks at materials, design options and installation

ORIGINAL WORDS
MARK STEVENSON

Above: This self build by Kast Architects (www.kast architects.com) features a cantilevered first floor volume with an overhanging flat roof, providing solar shading for the living space

Below: With a circular pitch, each slate tile had to be individually cut for this home. Using Cup R12 Excellence dark grey natural slate from Cupa Pizarras (www.cupa pizarras.com), the roofing gives the home an organic feel

When designing your new home, the roof might not come to mind as the most exciting feature, but it plays a crucial role in shaping the finished house's character, functionality and energy efficiency. Beyond providing protection against the elements, the roof defines your home's architectural style, impacts interior space and influences sustainability and thermal performance.

This guide covers the key considerations for pitched and flat roofs, offering insights into materials, methods and design ideas to help you create the perfect roof.

Pitched roofs

Pitched roofs have been a cornerstone of British housing for centuries. They're aesthetically versatile, ranging from simple gable roofs to more complex hip-and-valley or mansard configurations, suiting various preferences.

Modern designs typically comprise a timber truss framework that supports the roof covering, creating a durable and weatherproof barrier. The basic components include timber rafters, joists and supports, a breathable underlay (membrane), battens and the roof covering itself, which might be tiles, slate or metal.

The main appeal of a standard trussed roof lies in its affordability and quick assembly. Prefabricated trusses are widely available and cost-effective for straightforward designs. However, their design – particularly standard fink trusses with their webbed structure – can limit internal roof space, often making loft areas unusable.

Insulating a pitched roof

When it comes to creating a comfortable and energy-efficient home, how you insulate the roof is critical. Pitched designs must be insulated properly to support thermal performance and ensure the durability of the roof structure. There are two primary methods: cold roof and warm roof construction.

Cold roof construction Insulation is placed at ceiling level, leaving the roof void (loft) above cold. While this is the traditional method, due to its low cost, lofts are not habitable and require adequate ventilation to prevent condensation. To meet modern Building Regs, cold roofs are insulated with quilt insulation laid between and over the ceiling joists to a depth of about 400mm, leaving the rafters that support the roof covering exposed to outside temperatures. Care must be taken to make sure the bulky insulation does not block ventilation paths at the eaves.

Warm roof construction Insulation is fitted at rafter level, ensuring the entire roof structure remains warm. This method is ideal for homes with habitable lofts or vaulted ceilings, as it creates a continuous thermal envelope. Although more expensive, warm roofs unlock liveable spaces and offer better energy efficiency.

Warm roofs typically use rigid insulation boards (such as PIR or phenolic foam) installed above or between the rafters (or embedded into the structure, in the case of SIPs). Sometimes, an additional layer is added below the rafters, to reduce thermal bridging. A vapour control layer (VCL) is placed on the warm side of the insulation to prevent moisture from penetrating the roof structure.

Effective airtightness is just as crucial as insulation for making spaces like loft rooms or vaulted ceilings comfortable and livable. This prevents draughts that might allow warm air to leak out or cold air to enter the building, thus keeping your energy bills in check. The key component is the vapour control layer, which also acts as an airtightness barrier. In addition, breathable membranes must be installed above the insulation on warm roofs, to allow moisture that would otherwise be trapped in the roof structure to escape, while keeping water out.

Above: this self build home in Oxfordshire has been finished with Catnic's (www.catnic.com) Urban standing seam powder-coated steel on the roof and gable section

Pitched covering options

Choosing the right roof finishing material goes beyond aesthetics; it impacts durability, cost, and overall performance. Factors such as budget, planning constraints and personal taste will guide your decision. Common options include:

Clay tiles Traditional and highly durable, they can last up to 100 years. They are pricier than concrete, especially for handmade options. Plain tiles need a minimum pitch of 30°, while interlocking options can go as low as 17.5°.

NIKHILESH HAVAL

Left: Build It readers Matt and Sarah Switzer specified handmade Brookhurst Wentworth clay roof tiles from Sahtas (www.sahtas.co.uk) to satisfy planning guidelines

Concrete tiles These are a budget-friendly option and alternative to clay with a lifespan of 50+ years. Available in a wide variety of styles and colours, including designs that imitate clay and slate. However, they don't weather as well and are prone to fading over time.

Natural slate Premium and long-lasting (100+ years), offering a distinctive texture and colour, with a low-maintenance finish. The downside is it's fairly expensive, even when imported, and requires skilled installation.

Synthetic slate A manmade product that is designed to mimic slate at a fraction of the cost and weight. It's less authentic and less durable, however, it still has an expected life span of around 30-50 years.

Metal roofing (zinc, copper, steel) Lightweight, sleek, and long-lasting (50+ years). Often made from recycled materials but costly and potentially noisy in rain if not soundproofed. Skilled installers are essential.

Flat roofs

Despite their name, these structures aren't completely flat. Instead, they're built with a slight slope to ensure proper drainage. A standard flat roof includes a structural base (typically timber), a VCL to block moisture, insulation and a waterproof membrane. Installation methods depend on the substrate. Mechanically fastened systems are generally used for timber decks and fully bonded solutions for insulation slabs. However, it's best to seek the advice of a specialist installer before getting started.

Condensation is a key challenge in flat roof design and proper detailing is essential to manage this. The warm roof method, with insulation above the structural deck, is most common. This reduces condensation risk, improves energy efficiency, and prevents thermal bridging. Paying attention to the roof's vapour control layers and ventilation is essential to keep condensation in check.

Modern flat roof coverings

With advancements in technology, today's flat roof coverings offer improved performance and aesthetics, providing the durability and design flexibility self builders want. Here's an overview of the key materials to consider:

Single-ply membranes (EPDM, TPO) Lightweight, flexible, and weather-resistant, these membranes are easy to install and repair. EPDM, a synthetic rubber-based membrane, is a well-known and budget-friendly example. TPO is a high-quality alternative that requires experienced installers to be fitted, hence it's more expensive, but is particularly durable and comes with 15- to 20-year guarantees.

Fibreglass (GRP) Known for its seamless, durable finish, fibreglass provides excellent water resistance, with most suppliers offering 20-year warranties. However, it can crack under stress or impact if it has been poorly installed.

Bitumen felt This is a budget-friendly choice for flat roofs. Although affordable, it does lack the durability and aesthetic appeal of more modern materials. Cold-applied versions are now available, eliminating the safety risk of hot works.

Traditional flat roof coverings, like felt and asphalt, are cheap but tend to fail after 10-12 years, especially in extreme weather. Remember, when choosing a membrane, always opt for materials that have been independently assessed, such as BBA-certified systems.

WOW FACTOR IDEAS

Vaulted ceilings Create dramatic, open interiors with exposed beams or structural elements.

Rooflights Flood spaces with natural brightness enabling rooms deeper into the floorplan to be created without a loss of light.

Green roofs Provide a natural touch, as well as boosting insulation and sustainability credentials.

Feature trusses Expose intricate timber trusses or feature beams to create a characterful aesthetic.

Dual pitches Combine multiple roof pitches for a dynamic style.

Hidden gutters Create clean lines with concealed drainage systems for a modern aesthetic. These work particularly well if you're opting for a metal roof covering.

Cantilevered roofs Extend rooflines beyond walls for a bold, one-of-a-kind look.

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Cladding & external finishes

From modern renders to stylish brick, there is a whole host of cladding options for your build

When it comes to thinking about what external finish you want for your project, it's important to consider the options early to account for how it relates to the walling system, and the glazing, roof tiles and the size of the walls. Every solution has its own advantages, and the right choice for your project will depend your budget, the location, style and long-term maintenance considerations. Here's a quick look at some popular exterior finishes.

TIMBER CLADDING is a durable, sustainable material available in a variety of profiles and stains. It can be installed vertically or horizontally using nails, screws or hidden fixing systems, and styles range from shiplap and slatted designs, to scalloped edges and shingles.

Certain species, such as oak and larch, are naturally resistant to decay, developing a silver patina over time. Shou Sugi Ban – the traditional Japanese method of charring wood for a rich, blackened finish – is also a popular choice. Modified timbers like Abodo, Accoya, and Thermopine offer enhanced performance, too.

Price range: £ – ££ – £££ (depending on species and finish)

BRICKS & BRICK SLIPS come in a wide range of styles, from handmade clay for more traditional homes to modern thin-cut cement units. Bricks offer excellent durability and weather resistance, with minimal maintenance other than needing repointing over time.

Masonry can be laid in creative patterns such as traditional stretcher, Flemish or English bonds, while brick slips (tile-like versions) can create beautiful herringbone or basketweave designs. Typically, brick slips are installed using adhesive panels.

Price range: £ – ££ – £££

METAL CLADDING such as steel, aluminium, zinc and copper can add contemporary accents to a build. Weatherproof, lightweight and hardwearing, many can also contribute to the eco-credentials of your project as they are long-lasting and recyclable.

Installing metal cladding is a job for a specialist contractor. It's vital that your site team pays attention to airtightness liners and membranes, lapping joints and flashings to ensure a weatherproof finish.

Price range: £ – ££ – £££ (depending on material and finish)

NATURAL STONE offers a luxurious aesthetic that can be installed one stone at a time or supplied as a modular panel system. Limestone, sandstone and slate are popular options, however granite offers exceptional colouring and character. Consider the cut, laying pattern and mortar, as they will all have a bearing on the final look.

Top: K Rend's silicone render finish provides bags of modern appeal, as well as a weatherproof barrier that's breathable and water repellent

Above: Uncoated Western Red cedar from Millworks has been paired with white render and sleek rainwater goods on this self build home

This finish can be laid directly by a specialist installer or stonemason, tied back to blockwork or, in the case of timber frame homes, to an additional backing board.

Price range: £ – ££ – £££

RENDER provides a stylish look to suit your aesthetic– from smooth to roughcast options. It can be applied in layers by hand or sprayed on directly. It offers good weather resistance and can enhance insulation properties but may require repairing if cracks appear.

Design-wise, render can appear bright in a landscape, so it's important to consider its visual impact. Modern self-cleaning silicone or acrylic versions are now available, which are quicker to apply, less prone to cracking and through-coloured for a versatile, long-lasting finish.

Price range: £ – ££ – £££

FIBRE-CEMENT weatherboarding is created by mixing cellulose, fillers and fibres with water – before cement is added to form wet sheets that are dried and shaped. The finished product can be either through-coloured – offering a low-maintenance alternative to coated timber – or painted to achieve a specific aesthetic.

Fibre-cement boards are frost-proof and fire-resistant. They are typically installed by nailing or screwing planks onto vertical battens, much like timber cladding.

Price range: £ – ££ – £££

CONTACTS **Cupa Pizarras** 020 3318 4455 www.cupapizarras.com **Imperial Bricks** 01746 330994 www.imperialbricks.co.uk **K-Rend** 028 2826 0766 www.k-rend.co.uk **Millworks** 01223 967733 www.millworks.co.uk **Northcot Brick** 01386 700551 www.northcotbrick.co.uk **Russwood** 01540 673648 www.russwood.co.uk **Vastern Timber** 01793 853281 www.vastern.co.uk **VMZinc** 01992 921300 www.vmzinc.com

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Need to know

Timber cladding longevity

Millworks' Steven Newman looks at how to achieve a quality, lasting installation

Left: This project features naturally durable Canadian Western Red cedar cladding. Left uncoated, it will weather beautifully over time to a soft, silver-grey patina

Inset: The Grad x Millworks secret-fix system secures timber boards from behind using pre-spaced clips, maintaining the integrity of the finished facade

Timber cladding remains a popular choice in both traditional and modern architecture, offering a unique blend of natural beauty and tactile appeal. With the right approach it can provide decades of performance. Longevity, however, depends on four key factors: material choice, design detailing, installation method and ongoing maintenance.

Selecting a species

The first and arguably most important decision is selecting a timber species suited to your project's environment and desired lifespan. Options such as Canadian Western Red cedar and larch are popular due to their natural properties that provide durability without the need for additional treatment. When installed with adequate ventilation and correct detailing, these timbers can last over 30 years, even when left uncoated.

For enhanced durability, modified timbers offer a reliable alternative. Products like ThermoWood Ash and Accoya undergo processes that significantly improve resistance to decay, achieving Class 1 durability. These species are particularly well suited to exposed environments as their enhanced stability makes them far less prone to cupping, splitting or warping. This also makes them an excellent choice for finishes that need a stable base to perform well.

Factory applied coatings

Left untreated, all timber will weather to a silver-grey (this does not affect the timber's performance, provided it has been correctly detailed). For those after an aged look, pre-finished wood products like Accoya Color Grey deliver an instant weathered aesthetic. Alternatively, accelerators such as the OrganoWood treatment protect against rot and fungal decay while encouraging timber to develop a uniform patina – an effective option for low-maintenance projects.

Where conserving colour is a big priority, a wide variety of coating systems are available to suit a whole host of aesthetic goals. Although these finishes don't extend the lifespan of the timber, they do offer excellent surface protection against UV degradation, discolouration and adverse weathering. Millworks' factory-applied MillCoat wood stain, for example, provides a breathable and durable protective layer while allowing the timber's natural grain to remain visible. It should be noted that medium-movement species, such as larch, benefit from lighter finishes, as darker colours absorb more heat, increasing the likelihood of movement. Choosing the right coating and ensuring it's applied under controlled factory conditions can enhance its performance.

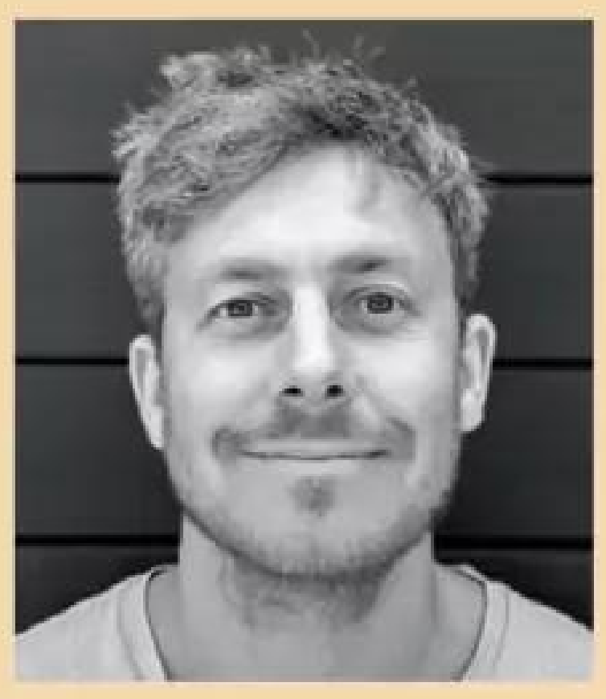
Achieving a lasting finish

Even with premium timber and coatings, careful installation and design detailing is essential. It's advisable to use a fixing system that avoids penetrating the face of the wood. Secret-fix solutions, such as the Grad x Millworks system, secure boards from the rear using clips and aluminium rails, preserving the timber's surface and reducing water ingress points.

Moisture is timber cladding's main enemy, so preventing prolonged exposure is key. Cladding should always be installed with a gap above ground level and include design features such as splashback detailing, roof overhangs and well-positioned trims and flashings to guide water away from the building.

Cladding profiles should be chosen to encourage water run-off and minimise the risk of potential water traps. During installation, adequate expansion gaps between boards are essential to accommodate natural movement caused by humidity.

Maintenance plays an ongoing role, too. Choosing a coating system designed for ease of reapplication, such as water-based stains that fade gradually, will simplify maintenance. Millworks' MillCoat, for instance, can be reapplied with minimal surface preparation. Regular inspections and cleaning will help identify early signs of wear, and recoating before finishes visibly degrade ensures protection and avoids costly remediation.



STEVEN NEWMAN is the founder of Millworks. He shapes the company's values with a passion for research, development and long-term investment. Through prioritising innovation and quality, Millworks combines advanced engineering with strong knowledge of timber behaviour, delivering high-performance solutions that support self builders and renovators. For guidance on selecting the best cladding and installation system for your project, get in touch with the team online at **www.millworks.co.uk** or call **01223 967733**.

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OPTIONS & COSTS

The right rainwater goods will ensure your home looks great and functions the way it should. **Erika Chaffey** shares her insight into how to specify your ideal setup for your self build project

Selecting guttering and downpipes that suit your home's practical requirements is crucial for protecting your property against water ingress and maintaining its structural integrity. Efficient setups ensure proper drainage, preventing issues such as damp, mould and in extreme cases, foundation damage. Here, I'm looking into the key considerations for specifying rainwater goods and the options on offer.

Practical considerations

Start by assessing your home's unique needs. "If your property is a listed building or located in a conservation area, the rainwater system may need to be approved by local planners," says Ian St John, specification manager at Brett Martin. The biggest factors in terms of the technical details are the house's roof size, slope and local climate conditions. "It's important to calculate the required capacity of your guttering and downpipes, to handle peak rainfall in your area and ensure adequate drainage," says Charlie McNeil, managing director at Rainclear Systems.

It's best to choose products that are durable and resistant to weathering, while considering factors like compatibility with existing structures, ease of installation and future maintenance requirements. Good upkeep is key to ensuring that your system functions effectively. "Rainwater goods need to be checked regularly, particularly in areas where there are large amounts of falling debris, such as leaves from nearby trees," says Ian.

Selecting the right design

In general, aim to keep the number of downpipes to a minimum so you can avoid having them crisscross the elevation of the house. Your architect should factor in the connection points with gutters, too, to ensure a seamless result.

If you want a streamlined finish, you might choose to conceal the guttering entirely by hiding the channels behind a parapet. To achieve this, the roof rafters are cut just beyond the plate of the wall, while the cladding that covers the elevation of the house runs up a little higher. In the space behind, a small channel lined with a single ply membrane or special systems (often in zinc or aluminium) can be fitted to transport water away.

Material options

Choosing the best-suited material for your gutters and downpipes is just as important for aesthetics as it is for performance. Here's a rundown of the main options with an idea of what you can expect to pay for each material (prices courtesy of Rainclear Systems).

Above: This natural zinc guttering from Rainclear is priced from £45.86 per 3m length

CAST IRON Known for its great durability and traditional appearance, cast iron is ideal for period properties where authenticity is paramount. It's robust and long-lasting but requires regular maintenance to prevent rusting. Cast iron goods start **from £39.47 per 1.83m** primed gutter length.

ALUMINIUM Lightweight, corrosion-resistant, and available in a variety of colours, aluminium suits modern and traditional homes alike. Powder-coated options offer extra resilience and come in a range of shades. Pressed or extruded modern products can cost from **£42.34 per 3m** gutter length and heritage-style cast aluminium from **£61.15 per 1.83m** gutter length.

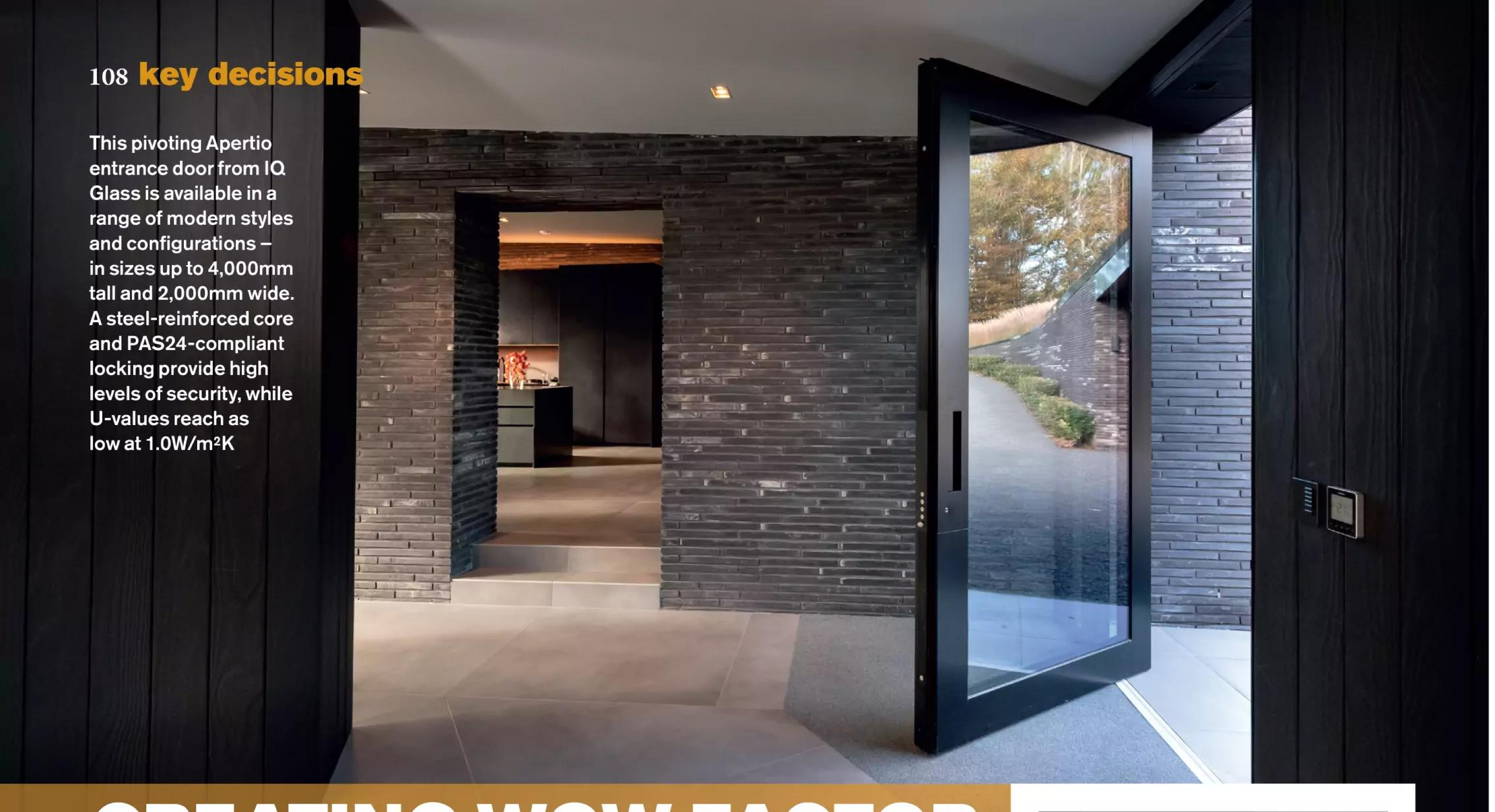
COPPER Offering a beautiful aesthetic thanks to the natural patina it develops, copper is highly durable and ultra-low maintenance. It's 100% recyclable with a service life of 100 years or more. The metal helps purify water and prevents moss and lichen building up in the gutters. Copper products start at **£121.21 per 3m** gutter length.

PVCU Cost-effective, easy to install and readily available, PVCu is a popular choice for self builders. It comes in various colours and requires minimal upkeep, but may not have the same longevity as metal options. PVCu options can be sourced from **£2 to £5 per metre** gutter length.

GALVANISED STEEL Combining strength and affordability, galvanised steel is durable and resistant to weathering, while providing a sleek look. The galvanisation process provides a corrosion-resistant finish, so upkeep is minimal. Products start from **£24.57 per 3m** length.

ZINC Despite its shiny appearance when first installed, zinc's surface develops a patina that allows it to mellow to a muted grey tone over time. It's a great option if you want to match a modern roof finish and, like aluminium, can be recycled indefinitely, thus boosting your project's sustainabiliy credentials. Expect to pay from **£48.61 per 3m** gutter length.

CONTACTS **Brett Martin** 020 8330 6522 www.brettmartin.com **Pagurek** 01225 595680 www.pagurek.co.uk **Rainclear Systems** 0800 644 4426 www.rainclear.co.uk **Yeoman Rainguard** 01132 795854 www.rainguard.co.uk



This pivoting Apertio entrance door from IQ Glass is available in a range of modern styles and configurations – in sizes up to 4,000mm tall and 2,000mm wide. A steel-reinforced core and PAS24-compliant locking provide high levels of security, while U-values reach as low at 1.0W/m²K

CREATING WOW FACTOR

FRONT DOORS & HALLWAYS

What to create an entrance that leaves a lasting impression? Erika Chaffey shares the key considerations and her top tips for a functional and eye-catching design

MIKE COUCH/PAUL CRAIG

Right: Build It readers Jonathan Boyne and Karen Anders chose a sleek, gabled entrance from Express Bi-folding Doors to showcase the contemporary style of the house within. The timber pivot door is oversized, so it sits in proportion with the expansive glazing that surrounds it

Your entrance is more than just a doorway; it's the first impression that you, your guests and even passersby will have of your home. A well-designed space balances style and function, providing a welcoming atmosphere while addressing practical needs like storage, lighting and privacy.

Investing time in the early planning stages, seeking expert advice and considering long-term usability will help you strike the perfect balance between practicality and style. Here, I'm guiding you through the core considerations for creating your ideal front door and hallway design, plus how to make a lasting impression.

Planning your setup

Achieving a high-quality entrance design begins with careful planning. Whether you're after a grand hallway or a compact entryway, considering sightlines, storage and layout from the outset will ensure a space that feels both cohesive and functional. "Planning should start as early as possible when the building is being designed," says Elizabeth Assaf, co-founder and designer at Urban Front. "A lot of our clients come to us about their front door ideas once the plans are finished and, by then, it's often too late to make any adjustments such as, increasing the size of the opening or making any significant structural changes required to accommodate the design they're after."

A good layout should enable you to take advantage of the best sightlines, while early planning will ensure your space includes all the necessary practical features, too. "Start with the size of the room and what needs to go in it," says Elizabeth. "If storage is essential, plan that first, followed by the staircase placement, door locations and lighting setup." For small entrances, mirrors and glazing can enhance the feeling of space. Clever storage solutions, like built-in cabinetry, multi-functional furniture and discreet coat nooks, can prevent clutter without compromising the aesthetic you want for your home.

Design & materials

Selecting the right front door style and entryway finishes plays a vital role in setting the tone for your home. Factors such as size, proportion and materials should align with your property's architecture and practical needs. "The size of your door is usually governed by the shape and layout of your home's facade," says Edward Stobart, technical sales manager at IDSystems. "It's worth seeking

TOP TIPS FRONT DOOR DESIGN

1 MATERIALS
Timber, aluminium, composite and PVCu are some of the most common material options, each with their own unique features and benefits. Whichever you go for, keep your eyes peeled for products that offer excellent insulation, good weathertightness and warranty-backed finishes.

2 GO BIG
An oversized entrance door can help to create an inviting entryway that makes your home look and feel spacious. Consider the width and height for a dramatic effect.

3 USE COLOUR & TEXTURE
A burst of colour and interesting finishes are great ways to inject character and make your entrance stand out. Contrasting shades, metal accents, wood graining, etched features, or ridging and panelling are fantastic solutions for designing a creative door design.

4 CONSIDER OPENING STYLE
Upgrading your entrance with a striking pivot opening will being a unique detail to your project. Rotating around a vertical axis, pivot doors add design flair and individuality. Plus, they don't require a conventional frame. Alternatively, you could opt to double up with two side-hinged front doors for a grand and luxurious look that provides easy access.

5 HARDWARE CHOICES
Stylish and practical handles, locks, letter boxes and house numbers can help to elevate your setup. Why not try supersizing your hardware, using the same colour as the door for a sleek look, or choosing a high-end handle in solid bronze for a touch of opulence.

planning advice from your local authority on what will be possible externally, especially in conservation areas."

Internally, durable materials like engineered timber, terrazzo, or stone are great solutions for withstanding high foot traffic while creating a timeless, polished finish. "Often hallways can feel rather cold or echoey, so it's worth thinking about softer textures and additional features that will absorb sound and visually cushion the space," says Nicky Mylius, architect at Mylius Architects.

For homes with tighter planning restrictions, certain materials and styles may be required to help maintain neighbourhood uniformity. However, subtle contemporary touches, like modern lighting, clever use of traditional materials or a refined colour palette, can introduce character while still meeting regulations.

Incorporating glazing

Balancing sunlight with privacy is vital when designing your home's new entrance. Obscured or privacy glass, sandblasted glazing, or ridged sidelights will allow light to flow through your space, while maintaining discretion. A fully glazed entrance, such as a glass gable, creates a striking, light-filled space, but it may require additional shading and privacy solutions, depending on your location and preferences. "Timber or metal slats allow light to beautifully filter through while offering clear views out from the inside and limiting visibility from the street," says Jim Cattle, architect and associate director at Snell David Architects. "Frosted or reeded glass and high-level openings are also great solutions for maintaining privacy without sacrificing daylight." In modest entryways, slim windows above your front door or to one side can be equally as effective for framing a view, allowing access to sunlight and maximising privacy.

Adding wow factor

Your front door and hallway setup is a great opportunity for you to showcase your personal style and make a unique statement. Key design elements, such as staircases, artificial lighting, colour choices and landscaping, can elevate an entryway from a purely functional space to an area you look forward to coming home to. "Hallways that allow you to see all the way through the house and out into the back garden have become hugely popular," says Edward. "Not only do they draw light deeper into the floorplan, but they also increase the connection between inside and out."

Statement staircases, oversized pendant lights and bold architectural features can further enhance the space. "To create an unforgettable zone, the key is to combine elegance with functional design," says Jim. "Large, open entry halls can be transformed with statement ceilings, whether this is through opting for dramatic height or striking materials, drawing the eye upwards and adding a sense of grandeur."

Consider how furniture and artwork set the tone for the rest of your home, too. A striking console table, a well-placed mirror, or a curated art collection in the entryway can act as a visual preview of the rooms beyond. Planning your interior scheme alongside the structural design of your home will help ensure seamless integration and continuity throughout the property.

Top: Solidor's Flint 5 composite French doors create a grand, twin-design entrance. The panels comprise a 48mm-thick solid timber core, ABS plastic skin and PVCu edge banding

Above: Adding a vibrant burst of colour is a great way to make your home's entrance stand out. This Urban Front 2.4m x 1.2m Rondo V e80 pivot door in RAL 1018 zinc yellow makes a striking statement

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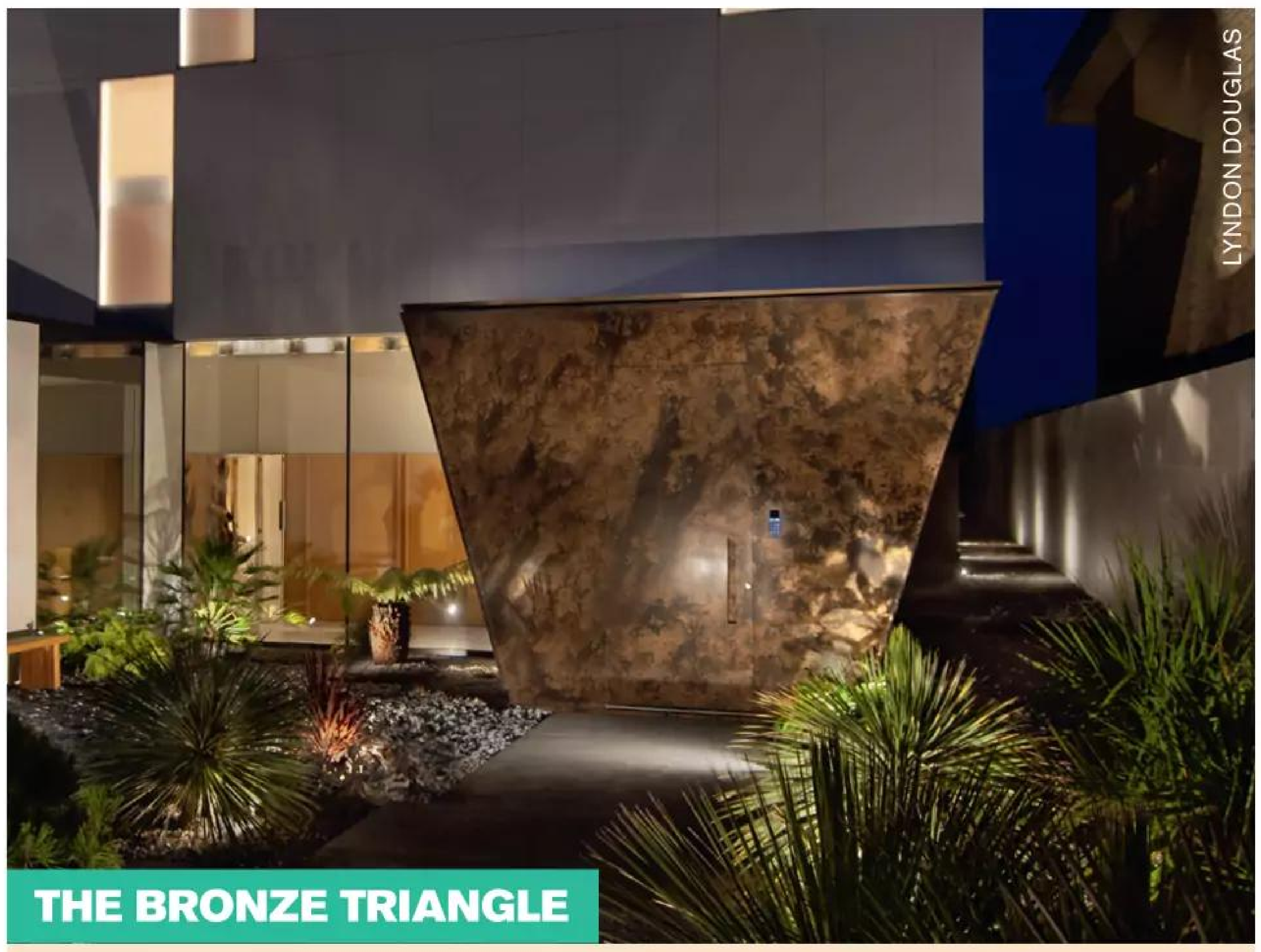
Amazing front door design ideas

Looking to add the wow factor to your home's entrance? Inspiration Door's **Bruce Dudman** shares some inspiring designs, and looks at the materials, technical and installation factors that underpin their quality

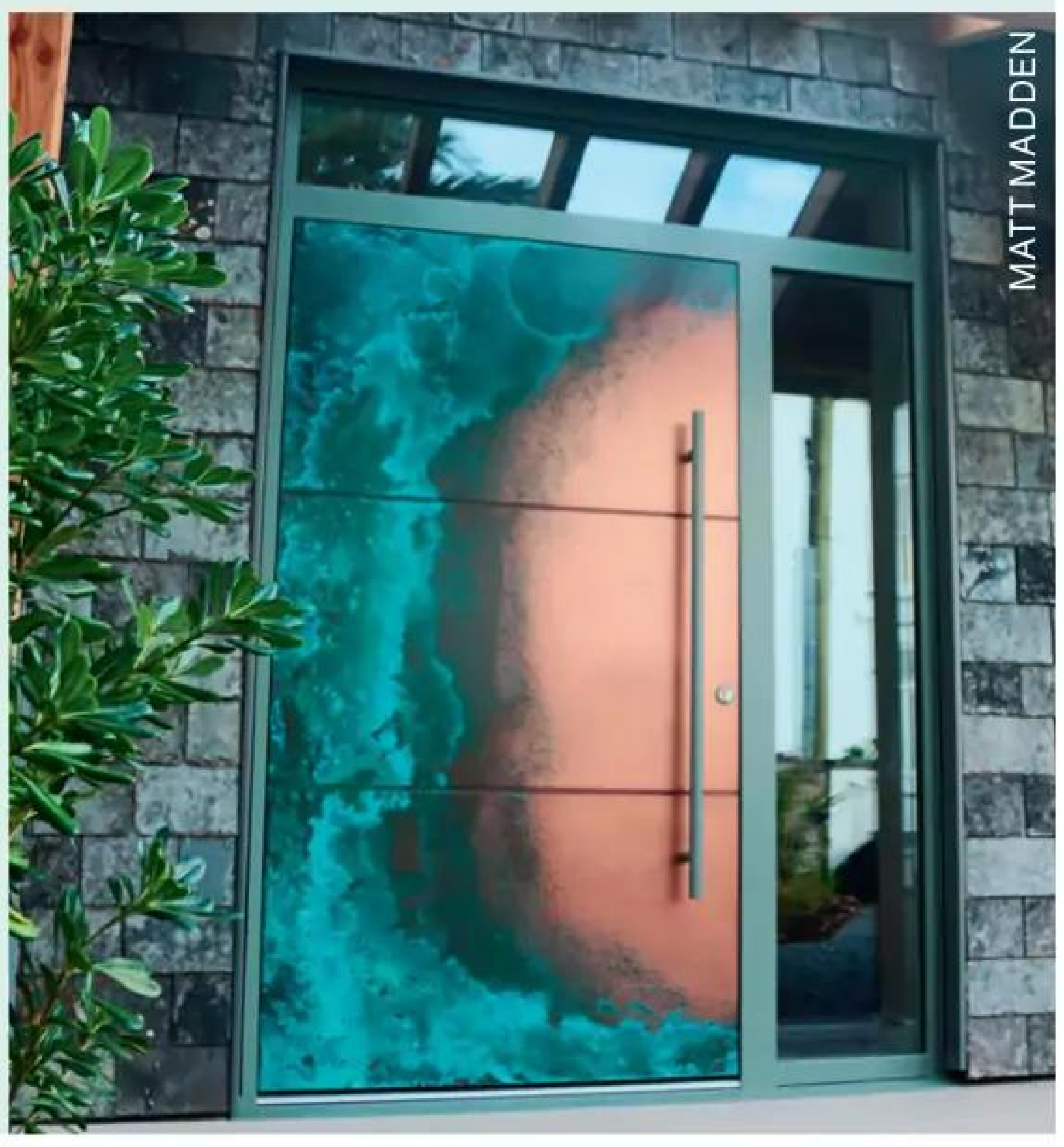

LYNDON DOUGLAS

THE BRONZE TRIANGLE

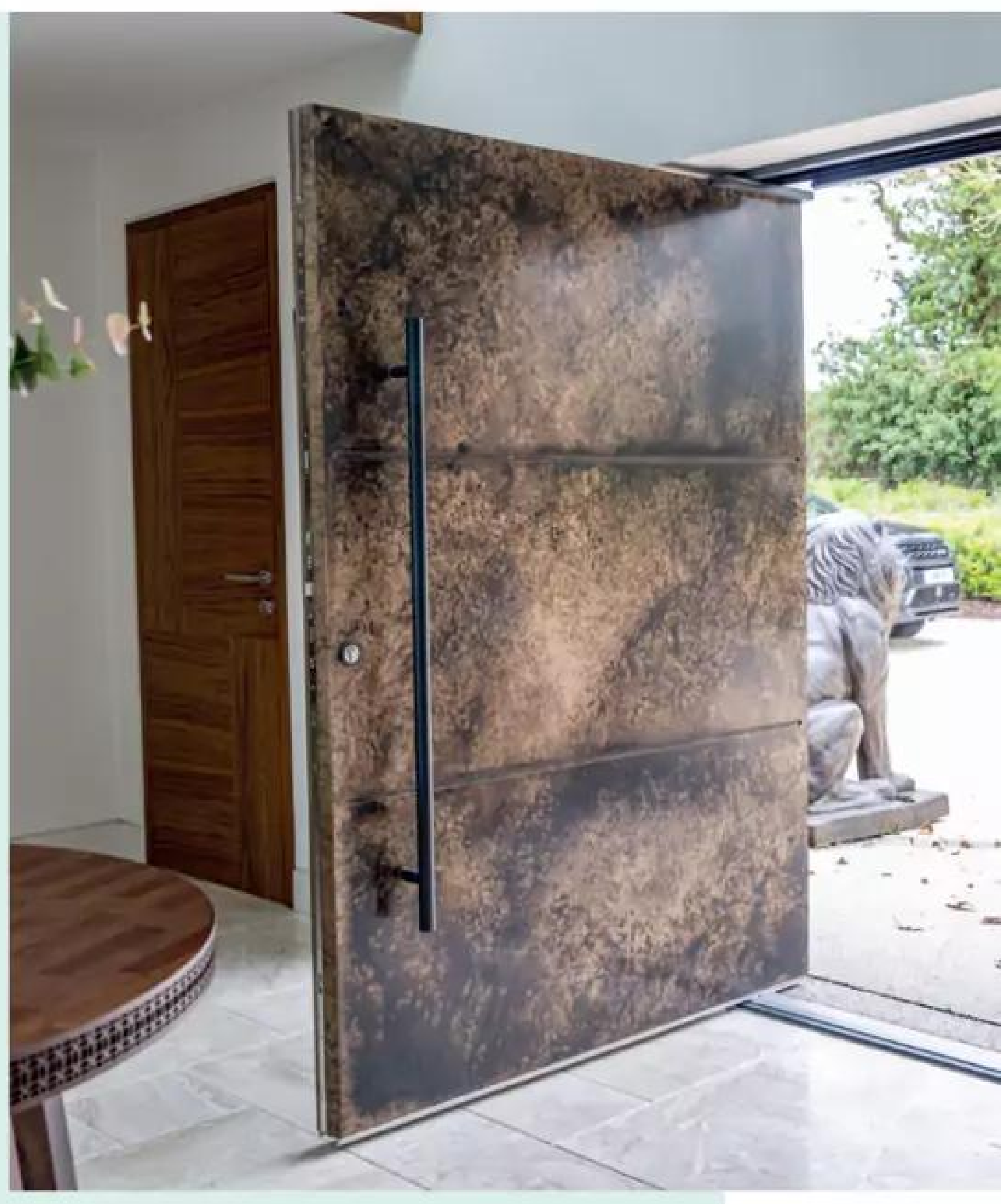
Brief: The client, led by architects Eldgridge London, sought a design that was minimalist and refined in appearance, bold and architecturally sculpted, and would seamlessly integrate into the building. A high-end spec was required in both materials and mechanical precision.
Solution: To meet the client's vision, Inspiration Doors delivered a triangular pivot door that redefines the entryway. Featuring minimalist geometry to achieve that sculptural feel, this door's custom bronze cladding has a hand-applied patina for depth, weathered elegance and warmth. The pivot hinge system is concealed for seamless movement. Tight tolerances, detailing and precision alignment maintain the aesthetic.
Installation: The complex geometry and flush integration required careful pivot calibration and close collaboration with the architect and site team to ensure the door fitted correctly into the steel subframe.

THE COPPER FUSION

Brief: On this high-quality project, the client sought a statement front door for their new build home that would enhance its modern architectural aesthetic, complement the slate cladding and offer resilience given the local coastal conditions.
Solution: This statement piece features a hand-lacquered verdigris copper finish, causing the metal to develop a unique patterned layer that also delivers advanced weather performance and sealing. The result is a characterful aesthetic that harmonises with the seaside views, delivers high-end performance and ensures minimal ongoing maintenance. Integrating the door with the slate facade was a key element of the project, requiring careful colour-matching and attention to the balance of materials.
Installation: This side-hung door integrates into a green-grey frame with top and side lights to boost natural light and capture glimpses of the nearby coastline. High-quality hardware ensures long-term smooth operation.

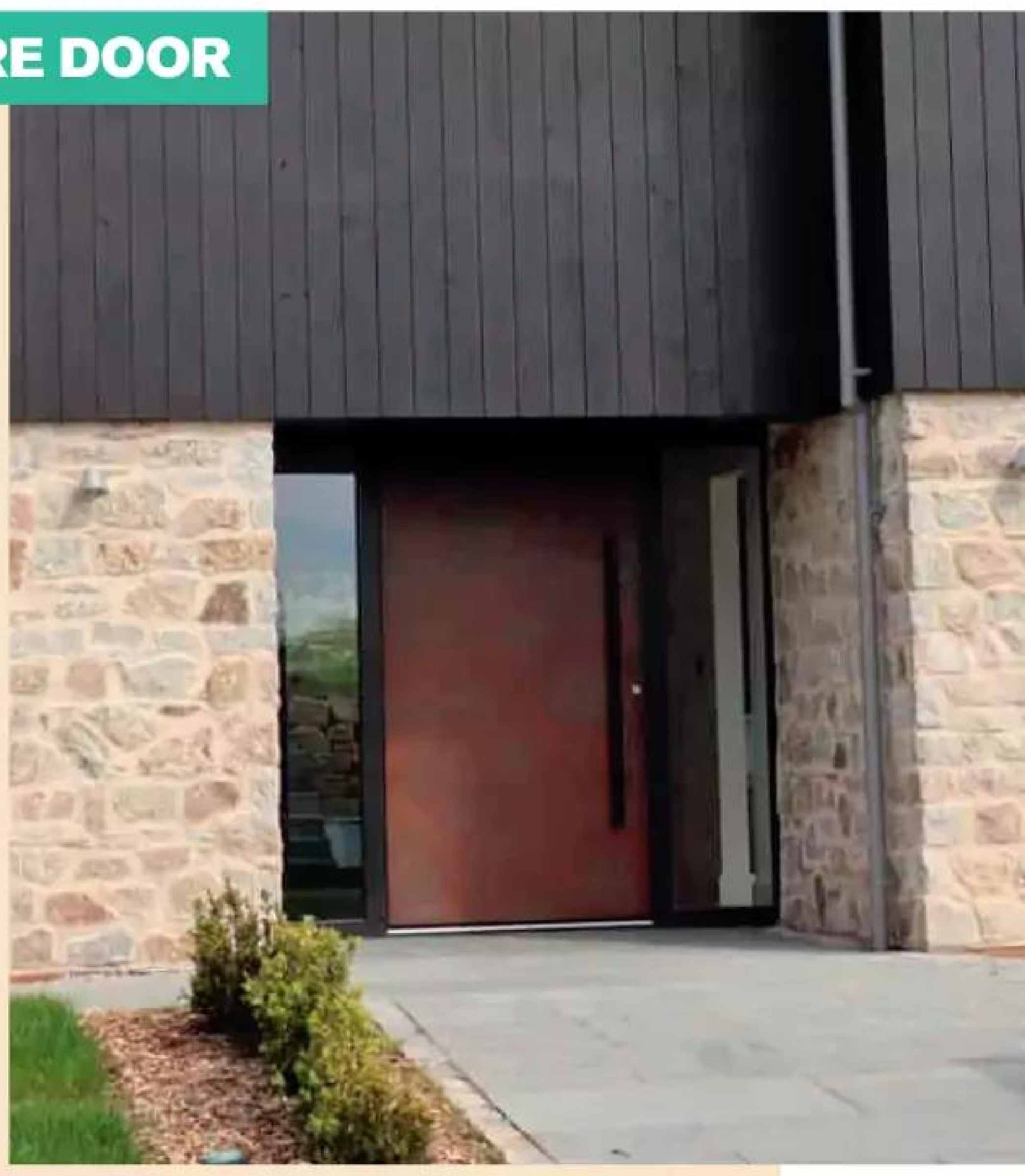

MATT MADDEN

THE MANOR BRONZE PIVOT



Brief: For this distinguished manor near Birmingham, the client desired an entrance upgrade to elevate the main facade with a refined statement that blends beautifully into the building's traditional aesthetic. They wanted a focal point of quality, durability and subtle visual impact to set the tone for their home.
Solution: Tailored to the historic manor, this bold pivot door delivers a monumental entrance that preserves its dignified character. The bronze patinated finish offers classical appeal and warm, evolving tones, plus long-term corrosion resistance. Concealed pivot hardware underpins the monolithic appearance. Custom framing and detailing align with the manor's proportions and architectural mouldings.
Installation: The pivot's structural load demanded reinforced door framing. Precise on-site calibration ensured perfect alignment, smooth opening and flush integration with the existing facade elements.

OXIDISED IRON SIGNATURE DOOR



Brief: As part of a four-house development in Truro, the client wanted a bespoke entrance that introduces rustic character to the contemporary architecture – something bold yet harmoniously warn, using durable materials suitable for conditions on the South West coast.
Solution: This full-height entry door is strong in presence yet minimal in design, using natural, elemental textures to softly counter modern lines. Its oxidised iron finish offers low maintenance and resilience for the exposed location, while its warm rust tones deliver a tactile surface. The bespoke joinery was completed in Inspiration Doors' workshop to ensure precise fit and function.
Installation: This door was assembled and finished in-house, before being carefully protected in delivery. On-site inspection of the finish was undertaken post-installation, to ensure surface integrity.

BRUCE DUDMAN is manager at Inspiration Doors. He has 28 years' experience delivering joinery of the highest quality, with a focus on design and craftsmanship – culminating in developing Build It Award-winning Inspiration Doors range. Made in the Camel Glass & Joinery workshop in Cornwall, each door is grounded in the region's natural beauty and built to the highest standards of insulation, security and thermal efficiency. Call **01208 479583** or visit **www.inspirationdoors.co.uk** to find out more.

HOW TO SPECIFY QUALITY WINDOWS

Our guide is here to help you narrow down the field and understand what to ask when shortlisting potential glazing suppliers

Above: These Norrsken P31A windows are designed to meet your aesthetic and practical goals. Each opening is manufactured to operate smoothly throughout the lifecycle of the self build project

Windows are a vital part of your home. They should provide daylight, access to views, and contribute to a thermally-efficient setup, maintaining energy balance year-round. They're also a significant investment so take time to research and choose the best system you can afford. Here, we share some of our top tips to help you select the right products for your self build project.

What does good design look like?

Buy cheap, buy twice is an apt adage in this market. Choosing poor-quality windows will not only compromise the look, but they'll also fall short in terms of durability and longevity. "Generally, the better the window is in terms of insulation, airtightness and security, the more it will cost," says Matt Higgs, managing director at Kloeber.

When it comes to understanding what you're getting for your money, look at the obvious requirements first. Take a closer look at what the manufacturer's warranty looks like and check any exclusions, too – understanding what's not covered is just as important as what is.

For a finished result that matches your aesthetic and performance expectations, start by selecting products from trusted suppliers. "The hardware is one tell-tale sign of quality – triple-glazed windows require better hardware due to the panels' increased weight, to ensure smooth and reliable operation for many years," says Vasilis Giannopoulos, specifications manager at Internorm. "Competent advice is also key – your window partner should have deep knowledge of the products and how they are installed, alongside offering a full consultation, design and fitting service."

In addition, before you buy, be sure you understand the level of service you're getting from the supplier. How much design support will they offer at the project planning stages? Who's responsible for measuring the openings? Who's installing the windows? What are the hardware options? An experienced supplier will streamline the process and help you to find a solution that meets both your performance and aesthetic needs.

The best way to really understand quality is to try units out in person. "Products can look very similar in pictures and online. It's only by really getting to look at and operate the window that you experience the quality," says Edward Stobart, technical sales manager at IDSystems. "This is critical if you're looking to push the boundaries with glazing, such as with big picture windows."

Performance values

Always interrogate the product's whole-window U-value (Uw) rather than just the glass pane (Ug). This is a measure of heat loss through all the materials making up the unit, with lower figures indicating better performance.

Building Regulations currently specify a limit of 1.6 W/m²K for new builds. However, 1.2 W/m²K or better is recommended as the notional dwelling target (an example house that would meet the regs), and in practice it's difficult to reach the whole-dwelling energy targets for a new build if you go much beyond 1.2.

There's often debate around whether its better to pick double or triple glazing. Triple will allow for lower U-values (the best designs can dip below 0.8 W/m²K) and is often specified by those looking to achieve extremely low-energy results, such as Passivhaus designs. But it does add cost and may not always be necessary – quality, gas-filled double glazing can comfortably hit that 1.2 W/m²K mark – so it's always worth discussing your performance goals with the design team and supplier.

Build It also recommends looking for systems that meet PAS24 standard for security performance. Windows

Right: This triple-glazed, timber-aluminium frame picture window from Internorm highlights the views of the Yorkshire countryside, as well as drawing natural light deep into the floorplan

installed in new build homes must be certified to this or a similar standard under Part Q of the Building Regulations. It's a good idea to ask for evidence that the window system you're buying is properly accredited.

Frame material

Modern PVCu windows are low maintenance and cost effective, with a wide range of impressive finishes on offer. The key is to avoid bargain-basement versions. Instead, limit your search to high-quality systems designed to deliver great long-term performance.

Thermally-broken aluminium windows can deliver good energy efficiency within an aesthetically striking product, with ultra-slim frames that allow the glass to do the talking. They're also low maintenance thanks to their corrosion-resistant coatings, meaning the window is easy to care for. The metal will not swell, crack, split or warp over time, ensuring an extended product life. Steel and bronze framed windows are also available, typically giving a very traditional look – although aluminium versions with glazing bars can replicate the effect.

Timber framed windows are a highly sought-after and characterful option, plus they can outlast other materials when properly maintained. Modern systems are made with engineered timber to create a stable and durable product. Plus, they offer great U-values out of the box. High-quality examples typically come with factory coatings guaranteed for at least five years. After five to 10 years, they'll need periodic maintenance.

The premium option is alu-clad windows, where a timber or PVCu core is finished with aluminium externally. Combining these two materials means you'll pay slightly more – plus the sightlines will be a little chunkier than aluminium-only – but the result is an ultra-efficient window that needs minimal upkeep.

What to budget

Window prices generally depend on a variety of factors, but tend to come in at around 5%-10% of a typical self builder's total construction budget.

Standard PVCu is typically the cheapest option; followed by aluminium and softwood; then hardwoods; with alu-clad and steel/bronze at the top tier. There will always be some variation, depending on quality, size and specification. Bear in mind that you're unlikely to use plastic windows for very large panels. It's also important to remember that big picture windows may require lifting equipment, which will significantly impact costs.

Triple-glazed products will cost more than double, but the cost uplift varies depending on the supplier, system detail and size of the window. On a fairly typical unit (2,400mm x 1,200mm), you might be looking at an uplift of between £50 and £400 for the extra pane. Other spec upgrades include higher-quality inert gas fillings and special coatings like solar control glass or privacy finishes.

Due to the ease with which timber windows accept finishes, many suppliers offer the same price for a wide range of stains and RAL colours – even if you opt for a dual-colour arrangement (one hue outside, another inside). The standard palette for PVCu and aluminium products is a little more limited, with some (though not all) providers charging a modest upgrade cost if you want something more unusual.

Whatever products you're considering, always call in three like-for-like quotes so you can compare costs with similar options. "If a price looks too good to be true, then it probably isn't very good quality," says Matt. "Quality materials, manufacture and certification come at a price."

EXPERT TIPS

VASILIS GIANNOPOULOS
specifications manager at Internorm UK offers his advice on the importance of good installation

Even the highest-performing windows will underdeliver if they are not installed correctly. A poorly fitted window can lead to thermal bridging, draughts and even moisture problems. To ensure a flawless installation in a new build:

1 **Buy quality products** Opt for windows with well-insulated frames, plus excellent seals and gaskets. Low-e glass coatings, gas-filled cavities and warm-edge spacers will reduce heat transfer, too.

2 **Position within the insulating envelope** Ideally, you want your windows to be be installed in line with the insulation layer rather than flush with the outer brickwork/cladding.

3 **Address airtightness** use high-quality airtight tapes, expanding foam and/or specialist membranes to create a robust seal around the window frame.

4 **Avoid thermal bridges** The junction between the window and wall must be insulated correctly to prevent any unwanted heat loss.

5 **Work with experienced installers** Engage professionals who understand how to correctly install glazing systems into a low-energy building fabric.

Above: Roseview Windows' Ultimate Rose, winner of Best Sash Window in the 2024 Build It Awards, is a quality timber-alternative PVCu sliding sash that features run-through sash horns and deep cills

Left: The 2024 Build It Award for Best Casement Windows went to Rationel for its alu-clad Aura Plus range, which is available as flush casements and a range of other opening styles, as well as French doors and sliders

CONTACTS

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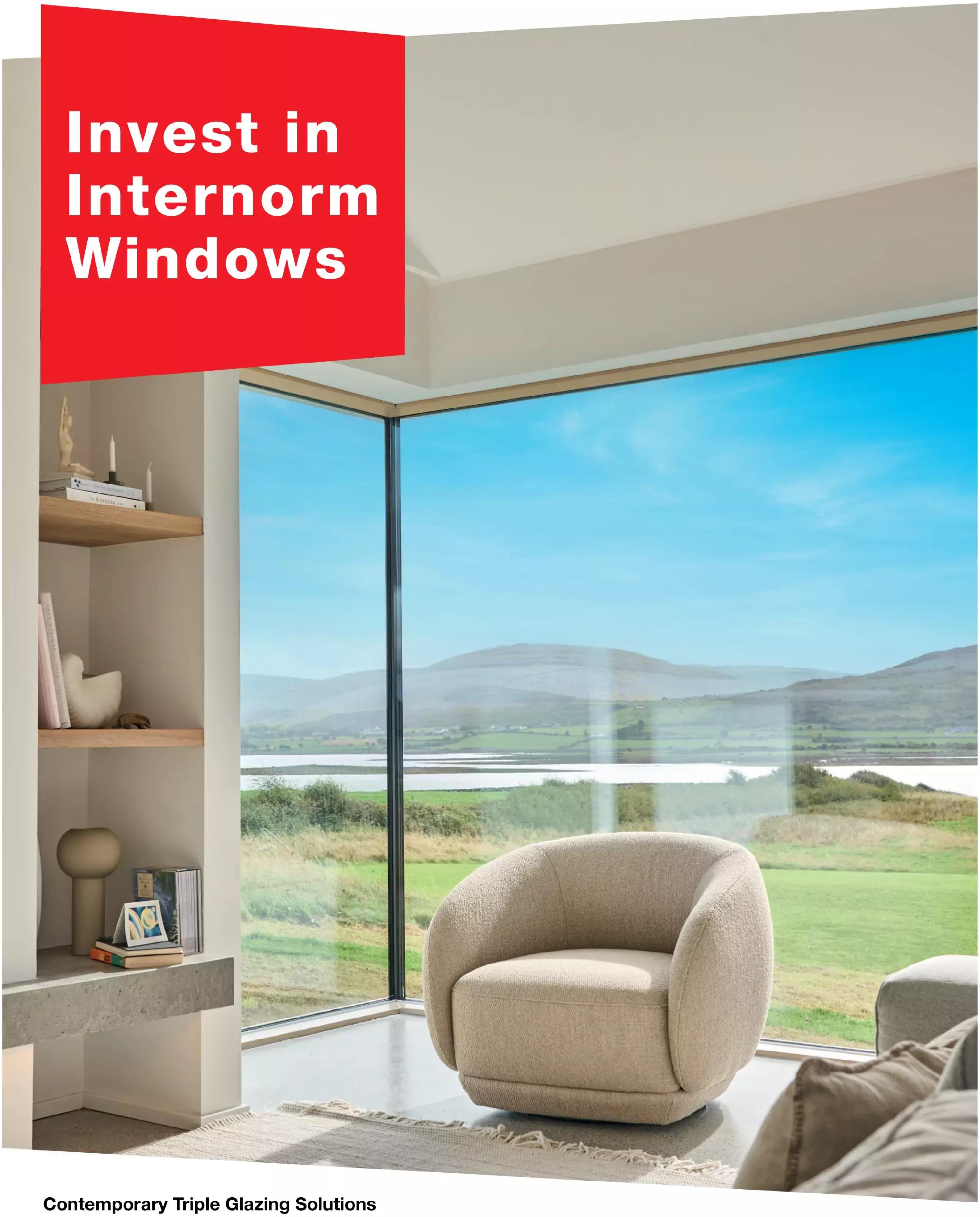

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GLAZED DOORS

CHOOSING A SYSTEM

From sliders to bifolds, French doors and pivots, there's a wealth of options to connect home and garden while maximising views

When it comes to aspirational features, glazed doors are right up there on the dream home wishlist. There are many options here to suit your architectural vision, access and performance requirements.

A lot comes down to your priorities, as well as the size of the aperture. So, what should you look for and how can you decide on the best choice for your build?

The basics

Like most things in life, you shouldn't expect to get a mid-range or high-end door system at a bargain price. You get what you pay for: if the price seems low, it's important to ask why. Could this be an indication that the door's construction, energy performance and/or running mechanisms aren't quite up to scratch?

The best way to gain confidence that you're buying a glazed door system you can rely on is to visit showrooms and completed homes to scrutinise them in person. Signs you're looking at a quality product include robust running gear or hinging systems; neat frame joints; reliable seals and gaskets etc. If you like what you see, then always ask for certificates backing up the performance claims (weathertightness, security etc). Be sure to read the small print on warranties to understand how comprehensive they are on aspects such as finishes and running gear.

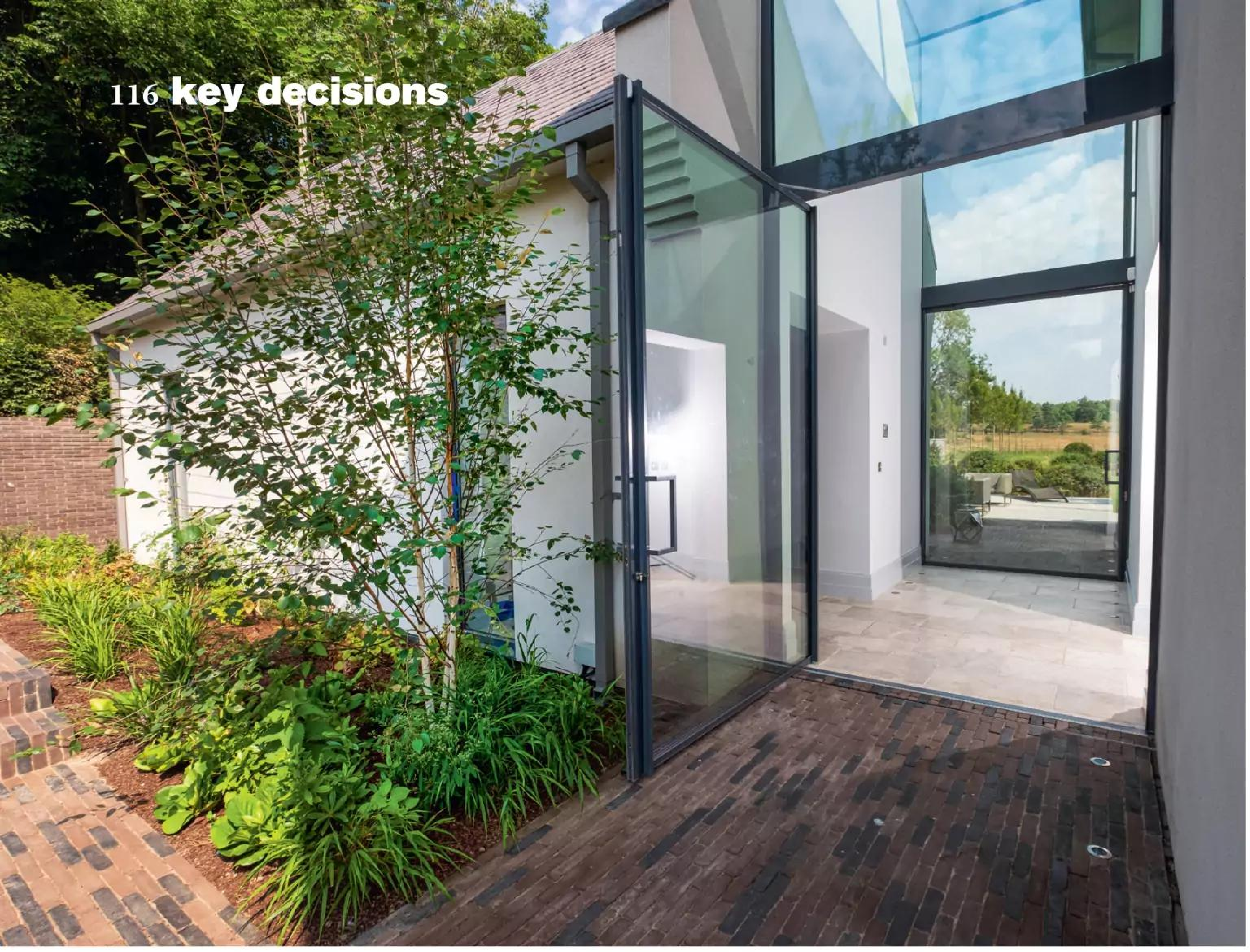
Frame material

Glazed doors are much bigger and heavier than standard windows, so, they need to be strong and rigid. For instance, some high-end sliding door systems can reach a breadth of up to 4m per panel (and up to 15m in a total run). "How wide the system can go is a good indicator of build quality," says Craig Luff, director at ecoHaus Windows & Doors. To ensure stability, this kind of span requires frames of either aluminium or alu-clad composite (typically a timber or plastic core with an aluminium external finish). Engineered timber can be a great option over more modest spans.

All three of these materials are go-to frame choices for bifold and French doors, where individual panel widths tend to go up to around 1m.

Above: This project features a double-glazed Uberslide door from Kloeber, as part of a corner system alongside a fixed panel. The specification meets PAS 24 standards and includes solar control glass

Below: Lacuna's Foldedor seamlessly fuses the indoor and outdoor living areas. These bifolds also require no repainting for 25-50 years in normal conditions



Above: These stunning large format pivot doors by IQ Glass come with super slim aluminium frames for a modern appearance with minimal sightlines

Below: IDSystems' theEDGE2.0 ultra-slim sliding doors are made from robust aluminium and provide practically unbroken views. This house by CODA Bespoke also features entire walls of glass that can be opened

"Bifolds can be installed in a variety of configurations of between two to seven panels, with the most popular choice being a three-panel set," says Bruce Moore, sales manager at Renka. "Our aluminium panels can each be up to 1.2m wide and 3m tall." Pivot doors, meanwhile, are generally oversized in both width and height, reaching sizes of up to around 1.5m (W) x 3m (H). This puts them firmly in the aluminium category, enabling maximum strength in a relatively slim profile.

PVCu is a valid option for sliding, bifold and French doors – but do think carefully before specifying on larger openings. Entry-level versions will be susceptible to thermal movement, which can cause significant issues even on relatively small openings.

Performance

As a rule, quality double-glazed door systems can reach U-values (a measure of thermal performance, where lower numbers are better) of around 1.1 to 1.3 W/m²K. Triple-glazed versions might get down to 0.7 to 0.8 W/m²K, making them suitable for ultra low-energy specifications such as the Passivhaus standard.

Your choice will be more nuanced than simply the upfront numbers: depending on your project goals, there's likely to be a sweet spot where U-values, sightlines and price converge. "The slimmest sliders look fantastic, for instance, with profiles of just 20mm-25mm, but they might not suit a really low-energy build," says Craig.

If you are looking to have good long-term performance, there's very little point in picking a system with great U-values but poor airtightness and weathertightness ratings. Pivoting systems are the trickiest doors to get completely air and weathertight although there are some solutions – such as air-lux seals – that promise to deliver a robust result.

MARC WILMOT PHOTOGRAPHY

Design & construction

In general, bifolds and sliders work best on bigger apertures, while French and pivot doors are well-suited to smaller openings. "We would recommend at least 3m for a bifold arrangement, as the panes can take up a fair amount of space on a smaller run when they stack," says Rebecca Clayton, director at Sieger Systems.

The finished look and cost of your door system doesn't only come down to the specific product you choose; the architectural design and how it's integrated into the building have a major impact, too. For instance, wide spans of glazing will require more support, typically in the form of chunky steel I-beams embedded in the structure. If you want to create features such as open corners or doors within curtain walling systems, this will inevitably require extra work in both the design and construction phases – but could add valuable wow factor.

A level, step-free threshold between indoors and out is another common choice, the exact cost of which will need to be priced up according to the structural drawings. How the frame interacts with external claddings and internal finishes needs to be thought through, too.

Most quality glazed doors are available in a huge range of RAL colours as standard, with little or no price difference. There may be extra costs if you want something a bit more unusual or are looking to have dual-colour (one finish inside, another outside) doors – but this depends on the product and supplier.

Glazing options

Double glazing offers strong performance, comfortably matching or surpassing Building Regs. If you want to go further and install triple glazing – perhaps because you're aiming for Passivhaus – expect to pay a bit more.

The exact price will depend on the door system in question. Some are designed to easily accommodate the extra thickness that comes with choosing triple glazing. Others, such as those that feature a bonded

CASE STUDY THREE OAKS FARM

Glazing was fundamental to the spectacular design of this single storey self build, as a key part of the homeowner's brief was to maximise the visual connection to the rural surrounding landscape and beautiful wildflower meadows.

The extent of the glazing called for deep expertise, so the clients chose ecoHaus Windows & Doors to supply and install the bespoke triple-glazed systems from Internorm. "The courtyard features 22.5m of continuous glazing, with corner glass-to-glass joins," say the owners. "This type of structure is something very few companies have the skill to do. As we had over 280m² of glazing that needed to be installed, you can't take risks."

A subtle blend of fixed panels and sliding door systems maximises the relaxing panoramic views. Show stopping floor-to-ceiling glazing throughout the property extends the views even further, creating entire walls of moving glass and delivering a continuous, unbroken connection to the outdoor spaces. As a result, the house is flooded with natural brightness, which helped to reduce the need for and cost of artificial lighting.

This was the owners' second self build, so they had a strong understanding of the importance of using quality trades and suppliers for each aspect of the build. "We hired experienced sub-contractors like ecoHaus," say the clients. "They use modern, extremely efficient methods with high-tech robots and skilled specialist trades to install the significant quantities of floor-to-ceiling glazing."

We thought the Internorm HS330 sliding doors installed by ecoHaus in this project were so impressive that we awarded them the Build It Award for Best Glazed Doors in 2024.

CHARLES HOSEA

construction, involve switching to a different frame profile (meaning a greater price increase). A triple-glazed door is also significantly heavier, which might require changes to the standard wheel mechanisms and could trigger the need for mechanical lifting equipment.

Other upgrades worth considering include privacy glass and solar control glass – the latter is particularly valuable on large south-facing spans. Solar control coatings work to reduce incoming heat (identified by a product's g-value) and thus minimise the potential for overheating. On a new build, your design team will need to factor overheating in under Part O of the Building Regs.

Installation

Many glazed door providers work on a supply-and-install basis, with fitting included in the price. The biggest benefit of this is knowing that a single company is taking care of measuring, manufacturing and installing the system, so there's a clear line of responsibility. If you are thinking of having an external builder or trade do the job, be sure to check that they hold appropriate credentials and that the manufacturer warranties will still be valid if a third party is doing the installation.

As a rough guide, it might take around a day to fit a typical sliding or bifold door system, at a cost of around £600-£1,000. French doors and pivots are generally supplied as doorsets, which can be quicker to install – although the latter can be trickier to align and adjust. Factors that may affect prices include site access, where you are in the country and the size/weight of the panels you have selected. It's also important to remember that installation costs will go up considerably if any lifting machinery is required (especially craneage).

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Main image: A three-panel set of theEDGE2.0, IDSystems' Build It Award-winning, ultra-slim sliding doors – installed here with a fixed pane gable above. The frames of the gable are carefully designed to match up with the slim 20mm interlocks of the doors below

Inset left: A contemporary sliding door feature handle and hardware, colour-matched to the frame of the door to provide a stylish finishing touch

Inset right: An open-corner set of theEDGE2.0 doors featuring a completely level flush track finish, for a seamless transition between inside and out

7 key details to elevate your glazed door install

IDSystems' Edward Stobart shares the inside track on how to nail a wow-factor specification

When it comes to glazed doors, it's easy to spend many hours poring over architect's drawings or specs, trying to identify the best possible system. Quality is important, of course, but getting a great result goes beyond the product itself. Here are some of the details and finishing touches that will ensure your doors deliver the result you want.

1 Flush finish

Many self builders dream of a step-free threshold through their sliding doors, for a seamless transition between indoors and out. Achieving this requires good planning, as the door track must be fitted at just the right height to match both the internal and external finished floor level. It's crucial you know how deep the track is, so your builder can accurately prepare the base on which it will sit. Opt for a system with an internal flush floor detail so your chosen surface (wood, tile or poured concrete etc) can finish neatly against the track.

2 Handles & hardware

Choice is the most important thing to look for here. We all have individual preferences, so being able to select handles that suit you and your home is vital. Look for suppliers who offer everything from recessed handles set within the frame for a minimalist appearance, through to bold feature designs and products that are colour-matched to the frame of our doors for that perfect finishing touch.

3 Door configurations

There's nothing worse than thinking you've found a quality sliding door system, only to discover you're limited in terms of how it can open. IDSystems' theEDGE2.0 ultra-slim sliding doors, a Build It Award-winning product, offer a huge range of configurations – and can even be designed to incorporate open, post-free corners or panels that slide into a pocket in the wall.

4 Colours

The ability to specify frame colours and finishes is central to customising your glazed doors. You might match the windows, for instance, or go for a bright, stand out shade. From subtle greys to striking blacks and metallic looks that glisten in the sunshine, the right finish will go a long way to delivering the wow factor.

5 Cladding & reveal detail

Consider how your doors will finish within the reveals. Wrapping returns or structural posts with aluminium cladding is a great way to lift the appearance of the installation, making it look like part of the overall design rather than a standalone. Details such as tread plates that cover unused parts of the track are great for creating a seamless finish.

6 Security

Don't settle for second best here. Opt for glazed door systems with features such as a continuous six-point locking bar for complete peace of mind, and consider specifying laminated glass to achieve an even greater level of protection from potential intruders.

7 Effortless operation

This hidden gem of a feature is a tell-tale sign of quality and attention to detail. It will enhance how you interact with the doors on a daily basis, and wow friends when you open huge sliders with just your little finger! High-performance stainless steel running carriages are key to handling the weight of the largest door panels.

EDWARD STOBART is technical sales manager at IDSystems, which is a multiple Build It award-winning glazing specialist. The company has over 25 years' experience delivering wow-factor glazing for self builds, home extensions and renovations. Edward works closely with self builders to offer advice and support on all aspects of glazing. For more information visit **www.idsystems.co.uk** or speak with one of IDSystems' technical sales team on **01603 408804**.

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BEGINNER'S GUIDE TO

Air source heat pumps

Above: The Grant Aerona3 inverter-driven ASHP achieves Quiet Mark certification as a low-noise heat pump. It also uses the R32 refrigerant, which has a very low global warming potential (GWP) and helps to deliver great efficiency

An air source heat pump (ASHP) is a modern, low-carbon way to heat your home that's simple and relatively affordable to install versus other types of renewable technology – with potential to deliver savings on household energy bills. A range of factors will contribute to your decision on whether an ASHP will work for you, including the size of the house, insulation levels and the type of emitters you're using. So, it's important to do your research before installing an air source heat pump to ensure it will perform effectively for your home and household. This guide will get you started.

What is an air source heat pump?

Powered by electricity, this heating system functions in a similar way to a fridge, but in reverse. In this article, we'll focus on air-to-water heat pumps; the alternative is air-to-air versions (similar to aircon - see the features on pages 131 and 139 for a look at this technology).

Air-to-water heat pumps use a fan to extract warmth from the outside air, passing it through a compressor to boost its temperature. This energy is then supplied to a cylinder or thermal store, where it is intelligently distributed to provide space heating and hot water for the home. What makes ASHPs an attractive, efficient option for homeowners is that, for every unit of electricity they use, they can deliver up to four times more heat energy.

Is my house suitable?

Heat pumps work best in airtight, well insulated houses. So, whether you're self building or renovating an existing property, the first step is to get the building fabric right. That means focussing on the key ingredients of good insulation and airtightness levels, in order to prevent warmth escaping from your living space.

A heat pump outputs at a lower temperature (around 35°C) than a conventional boiler (around 60°C-70°C). ASHPs are therefore best used in tandem with underfloor heating (UFH) or oversized radiators as the emitters, as these have a larger surface area that suits low-temp heat sources. If you're building a new home from scratch, it's relatively easy to incorporate water-based UFH.

How efficient is an ASHP?

A heat pump's base efficiency is measured according to its Coefficient of Performance (COP). This indicates the amount of useful heat output compared to how much electricity is used to power the pump. So, a COP of three means that for every one kilowatt (1kW) of electricity used, the air source heat pump produces 3kW of heat.

Bear in mind real-life performance depends on a range of factors, including the time of year (it's harder to extract useful warmth when it's very cold outside), how insulated your house is and the proportion of energy used for domestic hot water. Manufacturers have responded to this by providing a Seasonal Coefficient of Performance (SCOP) that attempts to account for variation across the year. Modern heat pumps use improved technology and better refrigerant fluids to maximise efficiency, with some products achieving SCOPs of 4 or 5 under lab testing conditions – but of course, this isn't a real-world scenario.

That's why we now use a Seasonal Performance Factor (SPF) to better understand heat pump performance. This measures the ratio of heat generated to electric input over the course of the heating system. A heat pump's

SPF is calculated by dividing the total annual heat output in kWh by the total annual electrical input in kWh.

Published data suggests an average SPF of 2.5 for an air source heat pump installed in the UK. In other words, 2.5kWh of heat for every 1 kWh of electricity used to power the system. However, this data was compiled in 2013. Both heat pump technology and the quality of the UK installer network has moved on since then, and a good project partner will be fastidious in helping you understand the likely performance before you buy.

How easy is it to install an ASHP?

Your heating engineer will look at your new build's planned performance to determine the best size of air source heat pump. This process takes into account factors such as the building fabric, glazing, room dimensions and heat loss. As a rough guide, a 4kW ASHP will provide the sufficient output for a typical three or four-bedroom home insulated to a good standard.

The heat pump will be installed outside in an external position where it will receive good airflow. Some types feature an additional indoor unit (stored in a utility room or airing cupboard), but with others everything is contained in the outdoor appliance. You'll also need an appropriate hot water cylinder, along with controls to deliver the heat efficiently to your emitter network and taps etc.

ASHPs are slightly less efficient than their ground source (GSHP) cousins, which extract warmth from the earth rather than the air. However, GSHPs require a lot of space to accommodate the underground collector pipework. So, if you have a tight garden or plot, an ASHP will be easier and more cost-effective to install.

What's it like to use an ASHP?

Much like boilers, air source is a hands-off technology. Once installed and configured, you should rarely have to touch the controls. By contrast, some renewables require significantly more intervention, which isn't for everyone. With biomass, for instance, you'll need to take regular delivery of pellets and possibly do some manual loading.

If designed and installed correctly by an MCS (Microgeneration Certification Scheme) accredited engineer, homeowners can expect their ASHP to deliver effective performance for approximately 15-20 years. So, ASHPs are a good choice for those who want a low-input, low-maintenance system. Modern products also feature high-quality smart controls to optimise performance and are very quiet in operation (look for the Quiet Mark badge).

On the very coldest days, your ASHP may need dip into its backup heater (typically an electric immersion), but the tech is successfully used in much cooler climates than Britain, so this should be a rare occurrence.

What does it cost to install?

Expect to pay around £7,000-£12,000 to fit an air-to-water heat pump system in a three-bedroom home. For properties that require a higher heat output, this sum could rise – and final costs depend on the size of your home, heat output required, whether you need to upgrade the insulation and emitter network etc.

Currently, you can access a government grant of up to £7,000 to install an air source heat pump under the Boiler Upgrade Scheme (BUS). This applies to self builders, too, and drastically alters the equation, bringing some installations in line with the cost of a new gas boiler.

What about running costs & carbon?

When calculating future bills, much depends on the overall performance of your home, what proportion of heating is required for domestic hot water, and the type of emitter you're using. As a starting point, one unit of electricity currently costs 25.73p/kWh under the energy price cap. That's roughly four times the unit price of gas at 6.33p/kWh; so a good install might deliver similar running costs to a boiler. It's worth noting, though, that under the proposed Future Homes Standard, new homes won't be permitted to connect to the gas network from 2026. ASHPs are well placed to pick up the slack.

In terms of emissions, a properly-installed heat pump in a well-insulated house will be a low-carbon solution. The Energy Saving Trust reckons you can save around 2,900kg of CO2 per annum compared to running a new A-rated gas boiler. Plus, if you are on a dedicated green electricity tariff, you'll reduce your reliance on fossil fuels.

CASE STUDY ASHP FOR VICTORIAN HOUSE

A research fellow at the University of Exeter, Richard Lowes has a passion for sustainability and inside knowledge of energy policy. So, when renovating and extending his two-bed, stone-built Victorian property, he decided to leverage his expertise and to deliver a lower-carbon home.

A core part of this was upgrading the central heating system. Richard chose a NIBE F2040-6 ASHP, 200L hot water cylinder and additional heat buffer vessel. This supplies UFH downstairs and a full radiator circuit upstairs. To maximise performance, there are independent heating controls for each floor.

A solar PV array has also been installed to provide power to the whole house. This includes supplying 24% of the electricity required to run the ASHP (once accounting for the time of day the heat pump is active and the solar PV is generating), with the rest being fed by the national grid.

Combined with other insulation and energy efficiency upgrades, this has saved Richard significant sums on his yearly energy bills, and decarbonised his cherished property. "The system has been totally reliable, the house is always at a warm and stable temperature and my bills are lower than with the gas heating that existed before," says Richard.

CONTACTS

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The Quiet Mark Guide to the Quietest Heat Pumps

Quiet Mark's experts reveal how to ensure a quality, low-noise install – and the products that can help you achieve the efficiency and comfort levels you want from your heating

With high energy bills impacting household budgets, the question of whether to install a heat pump continues to fire debate across the nation and in broadsheet press coverage. The government may have recently relaxed planning rules related to heat pump noise, but there's no doubt demand for the quietest models is growing among savvy self builders and renovators who want to specify efficient, cost-effective heating solutions that support a comfortable, enjoyable home environment.

Heat pumps offer remarkable energy performance, generating approximately 3.5kWh of heat for every 1kWh of electricity used, translating to an impressive 350% efficiency rate. This means you get significantly more heat output for each unit of electricity consumed compared to traditional heating methods

Noise is often a concern when it comes to heating systems. But heat pumps are generally quieter than fossil fuel boilers. For instance, a ground source heat pump (GSHP) might operate at around 42 decibels (dB), while an air source heat pump typically ranges between 40dB and 60dB (depending on the product and installation quality). To put this into perspective, normal conversation is about 60dB.

So, a well-specified system can be discreet and unobtrusive. What is now becoming indisputable is that homeowners want the best heat pumps with lowest noise certification. The key – as with any purchase – is to check a product is quiet before buying it, and to ensure the installation adheres to best practice.

WHAT IS QUIET MARK?

Over the last 15 years, Quiet Mark has built datasets of products' sound performance across a range of global manufacturers. Sharing the charitable remit of the UK Noise Abatement Society, Quiet Mark provides free advice for self builders and trade buyers – showcasing the quietest options on the market year-on-year, with a mission to solve noise pollution one purchase at a time.

Quiet Mark's expert acousticians rigorously lab tests and assesses the noise declarations of over 100 categories of noise issue products. It evaluates HVAC product eligibility via up-to-date data of legally declared decibel levels of current heat pump models and other technologies, including the kW output and decibel levels. Quiet Mark's raison d'etre is to support and encourage manufacturers' aims to improve the acoustic quality of their products for the benefit of their customers' wellbeing. **Find the full register of Quiet Mark Certified low-noise heat pumps online at www.quietmark.com**

Top tips for a quiet heat pump install

Specifying the right heat pump for your project involves assessing a range of parameters – from the performance of the building fabric through to the emitter type, your hot water requirement and more. As heat pumps become the go-to choice for many projects, however, there's one factor that merits greater consideration: how to deliver systems that achieve long-term peaceful operation.

To help support your goals, the Quiet Mark team has distilled the technical complexities of heat pump installation into this invaluable expert checklist for best practice, so you know how to frame the conversation with your heating engineer:

1 Consider noise at the design stage
Work with your house designer and install team to address factors such as the installation site, clearance around the unit, and any materials or structures that could lead to noise being reflected and amplified.

2 Discuss the final position with your installer
Most people prefer their heat pump to be located as discreetly as possible, away from opening windows, doors or entertainment spaces in the garden.

3 Lay a suitable foundation for the installation
An air source heat pump should be fitted onto suitable anti-vibration feet or mounting blocks.

4 Choose a low-noise model
Look for Quiet Mark certification so you know that you're specifying a heat pump that's low-noise in operation and won't require additional acoustic insulation measures to meet your expectations.

5 An annual maintenance plan will maintain quiet operation
As with all home heating appliances, Quiet Mark would always recommend having your heat pump serviced annually by a competent engineer to maintain all aspects of performance.

6 Choose a partner who will optimise the installation
It's one thing to purchase a top-tier, low-noise heat pump – but the quality of the installation needs to match it. Using a trusted Quiet Mark installation partner, such as Heat Geek, will ensure every aspect is detailed for quiet and efficient operation.

THE BEST QUIET MARK CERTIFIED HEAT PUMPS OF 2025

Quiet Mark Certified heat pumps are third party, expert checked air source and ground source models from leading manufacturers. Assessed by Quiet Mark's technical team on a like-for-like basis, all these models achieved the lowest noise levels against market-wide comparisons. Most leading manufacturers now offer Quiet Mark Certified heat pumps, providing a variety of options to suit different needs and preferences. Some of the lowest-noise models this year include:

Vaillant
aroTHERM plus

Vaillant aroTHERM Plus
One of the greenest air source heat pumps on the market, using a natural refrigerant with exceptionally low GWP (global warming potential) of just 3. Available in 3.5kW, 5kW, 7kW, 10kW and 12kW outputs, suitable for most domestic properties.

NIBE S2125
An intelligent air source heat pump with a single-flow temperature of up to 75°C. Its low sound level and natural refrigerant deliver a discreet, low-impact result. Combine with a NIBE indoor module for optimised savings, automatically adapting to household needs.

Daikin Altherma 3 H HT
Designed to perform reliably, whatever the weather. This single-fan outdoor unit achieves some of the highest efficiencies and lowest sound levels in the market.

Grant Aerona 290
Built for the next generation, utilising energy efficient R290 refrigerant with a low GWP of 3 to reduce environmental impact. Available in outputs of 4kW to 15.5kW, with a seven-year product guarantee when fitted by a Grant G1 Installer.

Worcester Bosch Compress 5800i AW
The quietest heat pump in Worcester's range, the CS5800i is built for UK homes and UK weather. Its sleek, compact outdoor unit is designed to look good in your garden. Low carbon emissions and a high flow temperature for best home comfort.

Samsung EHS Mono HT Quiet
A high temperature, low-noise heat pump with a durable and stylish design. The EHS Mono HT benefits from advanced technology to achieve hot water temperatures of up to 70 °C whilst operating at very low noise levels.

LG THERMA V R290 Monobloc
Next-generation model using natural R290 refrigerant. The stylish monobloc design is connected with only water piping, eliminating the need for refrigerant conduits. Can connect with three types of indoor unit, providing excellent customisation.

Mitsubishi Ecodan R290
An innovative model with guaranteed operation range down to -25°C ambient temperature. Uses R290 refrigerant to efficiently achieve high water temperatures up to 75°C and a low GWP. Available in 5kW, 6kW, 8.5kW, 10kW and 12kW outputs.

Warmflow Zeno
One of the most efficient appliances in its class, making use of the latest variable speed compressor technology. This gives a wide output range, which automatically modulates to suit your heat demands.

Logic Air
Ideal Heating's new range of monobloc heat pumps, designed to deliver efficient, simple, reliable low carbon heating in UK homes. Package includes a pre-plumbed hot water cylinder and connected Halo Air room thermostat for quick installation and easy operation.

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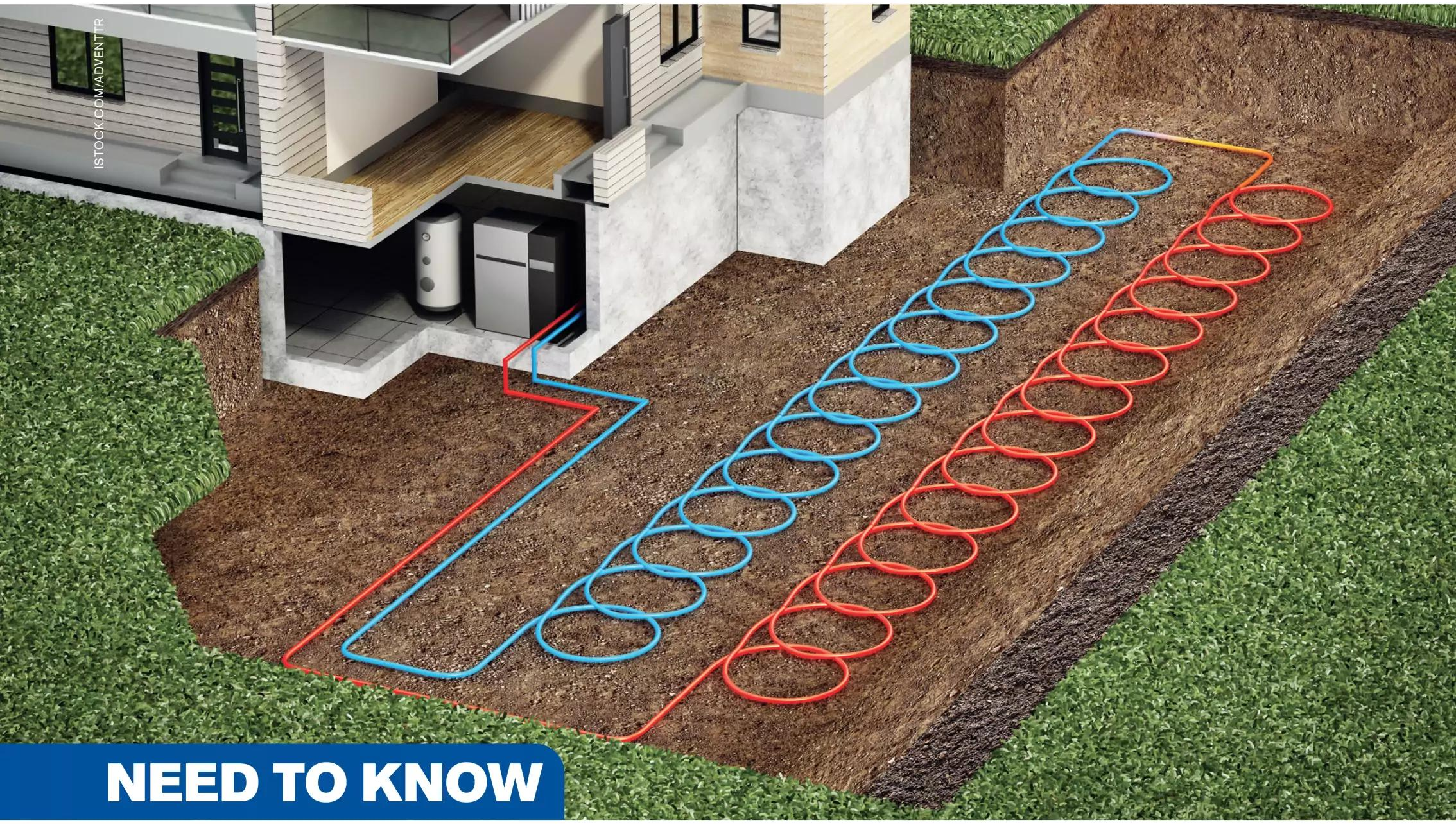
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NEED TO KNOW

Ground source heat pumps

This fit-and-forget eco technology can help deliver a low-bills, low-carbon home – but what should you consider for a quality install?

Suitable for a wide range of properties, ground source heat pumps (GSHPs) are low-carbon systems designed to deliver all your central heating and hot water needs. What makes a GSHP attractive is that it can generate around 4kW of heat for every 1kW of electricity it consumes – in other words, a well-designed system might run at 400% efficiency. So, how does a GSHP work and could this type of heat pump be right for your project?

How does a GSHP work?

A ground source heat pump extracts low-grade warmth from the ground, via a buried collector loop, before concentrating that energy in a compressor to increase its temperature, ready to transfer into your home's central heating system (via a suitable cylinder). A GSHP is designed to provide both space heating and hot water, and can even be specified to provide cooling in summertime by reversing the cycle.

Above: GSHPs require a collector loop, which can be either a horizontal design buried around 1m-2m into the ground, or a borehole solution that reaches deeper strate on compact or otherwise complex plots

Heat pumps work best when delivering consistent warmth at a relatively low temperature. This makes them an ideal partner for well-insulated and airtight homes with low-temperature emitters, such as underfloor heating (UFH), which aligns well with many self builders' eco home ambitions. With good design, radiators can also be suitable; the important thing is to ensure the whole system is designed in synergy.

Understanding what size and specification of ground source heat pump system you need therefore depends on a range of factors, including:

- **House size & number of occupants.** The bigger the house and the more bedrooms there are, the greater your heat demand is likely to be.
- **The building's energy efficiency and overall performance.** The more efficient it is, the lower the heat demand and the smaller the heat pump and collector loop need to be.
- **Emitter type (radiators, underfloor heating etc)** and your household's hot water demand.
- **How much garden space you have** and whether your plot's ground conditions would best suit a horizontal collector or vertical borehole.

What size GSHP & collector do I need?

A typical GSHP install includes the heat pump itself, which should be sized according to the peak heat load of the building, along with a hot water cylinder and a buffer tank. Peak load is based on factors such as the fabric and what insulation is in the walls, heat loss through windows etc. If the load is calculated at 12kW, then your installer might specify a 13kW heat pump.

The collector, meanwhile, should be specifically designed to provide sufficient energy throughout the year to satisfy your home's annual heat demand (different to the peak load). Quality design is crucial here: your supplier should be looking to specify the most cost-effective solution for the ground conditions.

If you have a suitably large garden, the most common option is to bury pipes in trenches about 1m-2m deep – what's known as a horizontal loop. "The collector is the battery for your GSHP, so you've got to get it right," says David Billingsley, sales director at UK-based GSHP manufacturer Kensa. "People might think they have a big garden, but in terms of heat pumps, it turns out not to be the case. On a typical project, you might need a 40-50m run to get a suitable ground loop in."

For tighter plots or where the expense of replanting would prove prohibitive, you'll need a vertical borehole setup. This should be designed by a qualified geologist, to ensure the ground conditions can meet your home's heat demand. On site, it involves specialist drilling rigs, so ensuring good access is a must.

"A 9kW heat pump might typically require a 180m borehole," says David Billingsley. "We advise customers on what's required and can give an estimate, then we put them in touch with trusted drilling companies for a detailed quote. For my own 13kW heat pump, I have nearly 300m of borehole; although in general, 260m would probably be sufficient for this size of GSHP."

Costs & savings

Size matters with any heating system, but particularly with GSHPs, as a bigger output means a larger collector array, with all the associated plant and labour costs.

As a rough guide, a 150m^2 house constructed to modern Building Regs might need a 7kW appliance, with a total installed cost (including horizontal collector loop, heat pump, hot water tank and commissioning) of around £20,000-£25,000. A 250m^2 home built to the same standard, meanwhile, might require an 11kW system at more like £25,000-£30,000.

Switch to a borehole rather than horizontal loop, and you'll see those prices go up significantly. For an average home, the cost of vertical collectors might start from about £8,000 – but that can quickly rise depending on size and ground conditions.

"Another factor with the kit price is whether the heat pump needs a single-phase electrical supply, which accounts for most of the properties we deal with in the UK, or three-phase," says David Billingsley. Three-phase is more expensive to install, but may be required for larger ground source heat pumps, or where you have high electricity demand.

Exactly how much you might be able to save depends on both the quality of the install and the type of system you're comparing it against. As a benchmark, one unit of electricity currently costs around 3.92 times the price of a unit of gas. Modern boilers also typically operate at around 92% efficiency, so there's a little wiggle room in terms of heat pump performance – beat 360% efficiency across the year, and you're starting to save.

For a typical, well-insulated four-bedroom home, the Energy Saving Trust suggests a GSHP would typically leave you better off by £90 per year versus gas, with considerable carbon savings on top. The gap may well widen further as competition in the heat pump market grows, and if the government follows through on proposals to de-link gas and electricity pricing.

QUICK GUIDE GSHP PROS & CONS FOR SELF BUILDERS

- **GSHPs take their energy** from a stable source (the ground). So, a well-designed system will be reliable and predictable, effortlessly delivering the comfort levels you expect.
- **You'll typically save** money on bills versus a conventional boiler, while drastically reducing carbon emissions.
- **GSHPs are straightforward** to install on many new builds, where you won't face the disruption and expense of reinstating mature gardens. Aim to do the digging while you have plant on site for foundations and drainage excavation.
- **A fit-and-forget technology** – there's no waiting around for fuel deliveries, next to zero ongoing maintenance and no noise disturbance to worry about (the internal unit is whisper quiet, with no fan noise, while the external component is simply pipework buried underground).
- **The 20+ life expectancy** of a ground source heat pump is twice as long as that of a boiler.
- **A GSHP costs more** to install up front than other heat sources. As a rough guide, ground source heat pump prices range from about £20,000 to £55,000 including fitting.
- **Boiler Upgrade Scheme grants** of £7,500 are currently available to soften the investment. "Incentives won't be available when heat pump costs drop and gas prices rise, so the BUS grant makes early adoption appealing," says Build It Live heating expert, David Hilton.

Above & right: When retired electrician Mr James decided to self build, a key goal was for his modest yet modern two-bed bungalow to focus on sustainability. To that end, he chose the small but mighty Kensa Shoebox NX 5kW GSHP. Installed by Onsen Energy, the system runs off two shallow boreholes, as the plot was too small for a horizontal collector. Running costs are currently £800 per year for heating and hot water combined

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Benefits of air cooling in modern homes

The Unico System's Richard Soper explores how stylish, efficient cooling can enhance the quality of your living spaces

Above: Even in minimalist interiors, it's tough to identify the sleek, discreet Unico HVAC outlets that deliver precise control over a zone's cooling, heating and air quality

It may not feel very traditionally British to worry about being too warm, but according to the Met Office, the number of hot days (28°C) has more than doubled and very hot days (30°C) trebled in the last decade compared to the latter part of the 20th century. Recent changes to Building Regulations have focused on delivering better insulated, more airtight homes, designed and constructed to retain as much heat as possible to save on energy and carbon emissions in the colder months. Meanwhile, self builders and developers naturally want to take advantage of large areas of glazing to maximise light and views.

Add all of that up, and you have a recipe for stuffy, overheated living spaces – something the government has had a first stab at addressing with the relatively new Part O of the Building Regulations, which came into effect in June 2022. The result? Effective strategies to keep our living spaces cool are fast becoming the hottest ticket on a self builder's wish list. The secret to getting this right lies in how we handle the air in our homes.

Air cooling: the most effective way to maintain comfort levels

Air can be cooled (and heated) much faster than water. So, systems that directly control the temperature and quality of the air offer a highly efficient, responsive route to achieving your ideal indoor environment. Of course, we've all seen this principle in operation in the form of the air conditioning in our cars, or in hotel rooms on holiday.

Traditional air conditioning has a number of drawbacks, however. They tend to dump air into a space unevenly, for instance, creating draughts and erratic temperatures across different parts of the room. What's more, they're not known for their good looks: few of us want such unsightly, space-hogging wall bling in our lovely new builds!

Thankfully, there's a modern alternative in the form of all-in-one, centralised HVAC (heating, ventilation and cooling) solutions – such as The Unico System. A quality HVAC install is ideal for overcoming those traditional issues and achieving your perfect living environment. For instance, Unico works on the aspiration principle, whereby suction draws the existing room air into the stream of cooled air. The new supply is also delivered at high velocity, which means it will mix more efficiently with the room air.

The result is even, draught-free and consistent cooling and heating throughout the home, along with the benefit of fresh filtered air. What's more, The Unico System also removes up to 30% more humidity than conventional aircon solutions. This means you can keep your thermostat a few degrees higher in summer, while still enjoying the same comfort levels – saving on energy costs.

One discreet system to control every aspect of your home climate

It's fair to say HVAC is better known in the US than Britain. That's changing, however, as UK homeowners, specifiers and builders awaken to HVAC's ability to deliver an efficient, highly controllable internal climate. With HVAC, forward-thinking self builders can have it all – heating, ventilation, cooling and great air quality – in a comprehensive package from a single provider, giving you confidence the solution you specify will deliver as expected.

As a centralised system, Unico's main air handler is typically sited in the loft or plant room, with supply ducting running from there. The small, flexible ducting provides for limitless design opportunities in new build homes, as well as making integration straightforward as part of the first fix work – so trades won't be fighting over space in the floor voids, and you get a clean finish that preserves that beautiful interior you've put your heart and soul into designing.

In addition to efficient heating and cooling, The Unico System provides ideal ventilation rates, filters out allergens and toxins, and manages a home's humidity levels to boost indoor air quality. Importantly, all of this is delivered in a whisper-quiet, discreet package via barely-visible ceiling, wall or floor outlets to fit with your design goals (just see if you can spot them in the picture at the top of this article!).

RICHARD SOPER is UK MD at The Unico System. He has over five decades' experience in the heating industry and was awarded a CBE in 2013 for services to the heating and renewable technologies industries. Alongside international board-level roles, Richard was MD and CEO of Bosch Thermotechnology (including Worcester Bosch). The Unico System provides the perfect home climate control from a small-duct, high-velocity renewable HVAC solution that's efficient and discreet. For advice on your project visit **uk.unicosystem.com/build-it** or call **01384 422094** to speak with the team's technical experts.

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Solar water heating

Discover the benefits of a solar thermal system and what you can expect in terms of installation costs and bill savings

Solar thermal panels make efficient use of the sun's energy to provide free, renewable hot water for taps and other outlets around the home. A typical system involves installing the rooftop collector panels and a twin-coil hot water cylinder. There will be an electric immersion backup, but this shouldn't be needed if the system is designed and controlled effectively.

How much hot water will it deliver?

In the summer, a well-designed solar thermal system should fulfil most (90%+) of your family's hot water need. Over winter, this will dwindle to more like 25%, but it will still provide energy-saving pre-heating, even on dull days.

Across the year, a properly planned install should provide about 50% of the energy required to meet a household's annual hot water demand. This percentage is known as the solar fraction. You may be able to improve this by adjusting your usage and how you programme the hot water. Ideally, you want to give the solar panels maximum time to fully replenish the cylinder, with the heat pump or other source acting as more of a booster prior to high-use periods.

What size should my solar thermal system be?

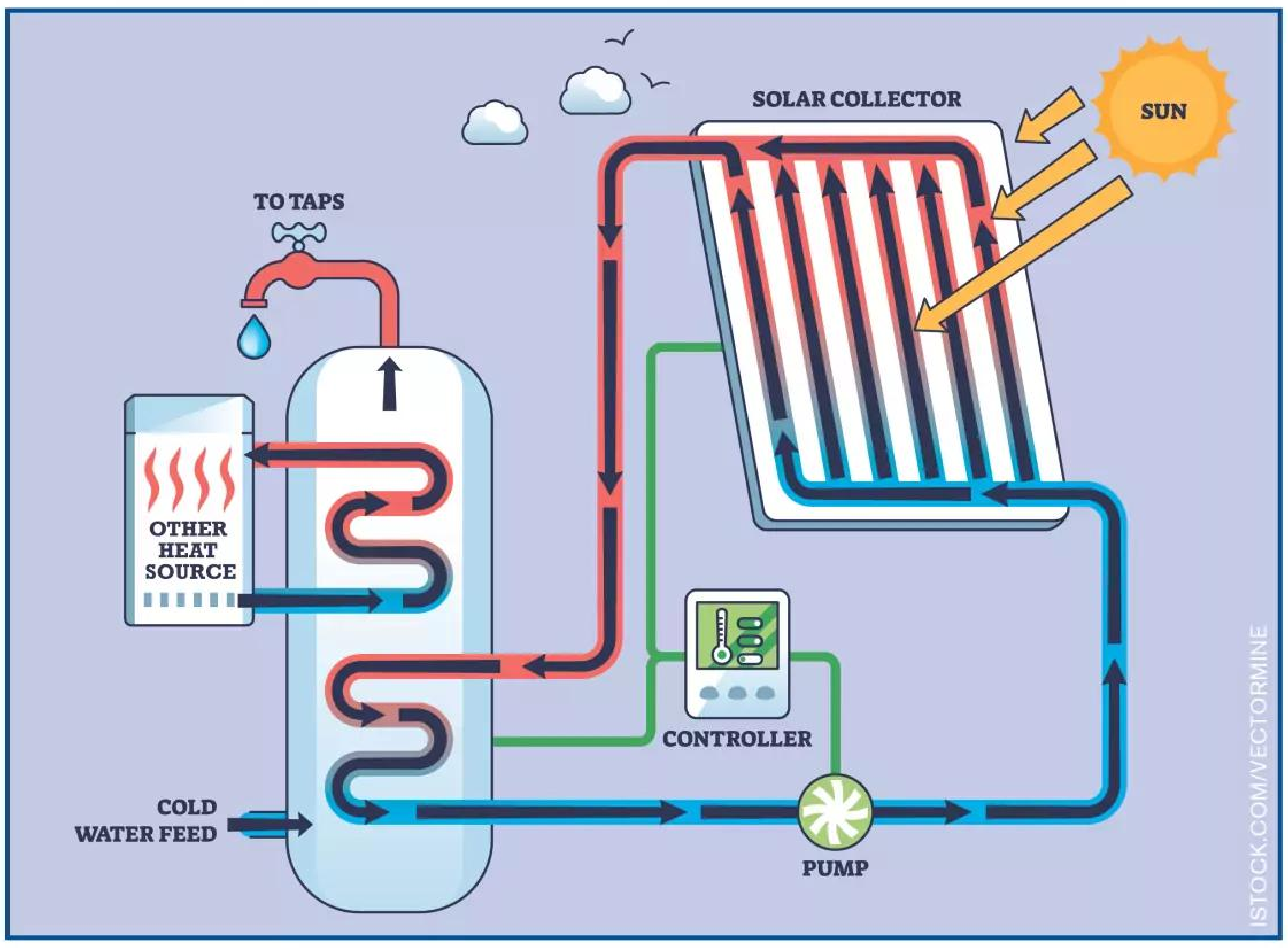
The starting point is about 1m^2 of collector per occupant, but your installer should assess your usage pattern before specifying. Most solar thermal panels are 2m^2 to 3m^2, so a small household might be ok with one, while a home with four or more people would typically need a two-panel array.

For optimum performance, the panels should be installed with a southerly aspect (anywhere south of east to west should make a useful contribution). North-facing isn't off the cards, but this may offer only 40% of the output versus a south-facing array. There are options for installing panels on pitched roofs, flat roofs or mounted on the ground, too.

Your engineer should also calculate an appropriate twin-coil cylinder capacity to meet demand and maximise the solar contribution. As a rough guide, most households will need a tank sized between 200 and 350 litres.

What does solar thermal cost?

Depending on size and spec, you can typically expect to pay £4,000-£8,000 for a quality install (including the twin-coil cylinder). According to the MCS, the average installed price for a domestic solar hot water system was £6,152 in 2024 (across new builds and retrofits). There may be savings with a new house in terms of existing scaffold, reduced roof tile requirements etc. In terms of ongoing costs, solar thermal is a simple technology, requiring relatively little maintenance over its lifetime.



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WHAT ARE THE ALTERNATIVES?

Rely on your primary heat source. A well-designed heat pump system should service both your space heating and hot water needs, though it will do the former slightly more efficiently than the latter. If you want a carbon-neutral solution, biomass boilers are an all-in-one system with a higher heat output. Under the Future Homes Standard, gas boilers may be phased out for new housing in 2026/27 – but until then, they're called boilers for a reason, and could still be worth considering for households with a high hot water demand and relatively small space heating requirements.

Fit a hot water heat pump. A hot water cylinder with integral heat pump. There are various approaches – the energy source could be air from around the unit; stale air that's extracted from kitchens/bathrooms; or a ducted supply of external air. Most systems output only to domestic hot water, but Total Home Environment's HPW can also supply up to 20m^2 of underfloor heating. It's capable of producing around 880L of hot water at 50°C every 24 hours (more than enough for a typical family) at up to 400% efficiency.

Divert excess energy from solar PV. Solar electric panels generate energy in daylight, which doesn't always correlate with usage patterns. Rather than investing considerable sums in battery storage, you could maximise performance with a relatively inexpensive solar power diverter. This intelligently redirects excess power for storage in your hot water cylinder, via an immersion heater. Do the maths first, though: the best smart export guarantee tariffs (paid by your energy supplier for exporting excess electricity) may deliver a better financial return.

How much will I save on energy bills?

The Energy Saving Trust (EST) suggests a 4m^2 system (for a four-person household in England, Scotland or Wales), might deliver annual savings of £110 versus a gas boiler, £130 compared to oil-fired heating and £200 versus electric water heating. If you have a high hot water usage (or a swimming pool) and the setup gets closer to fulfilling 60% of demand, you can expect bigger savings.

Of course, the financials may not be your only motivation. The EST puts carbon savings from a 4m^2 solar water heating system at around 380kg per year versus a gas boiler and 550kg per year compared to oil. This can help Building Regs requirements for carbon emissions in use, so you may be able to further improve payback through money saved elsewhere in your project budget.

Underfloor heating & radiators

We take a deep-dive into how to maximise the performance of UFH systems – and the options for stylish, efficient radiators

WORDS REBECCA FOSTER & CHRIS BATESMITH

Right: UFH pipework laid as part of a Robbens installation

Below: A UFH system from Nu-Heat that uses castellated floor panels for easy installation of the pipes, along with a super-thin screed

A go-to solution for many self builders, underfloor heating (UFH) turns your home's floors into a highly efficient, radiant heat emitter. The most prevalent type – and the one we'll be focusing on here – is wet UFH, which works by pumping water at roughly 30°C-35°C(the perfect temperature to partner renewables) through pipes installed beneath the floor. Electric systems are also available, but they are generally better suited to home renovation projects, where you're not specifying the floor build-up from the get-go.

A well-planned and properly installed UFH system can boost the efficiency of your central heating setup – and deliver a much more comfortable, even warmth than radiators. Plus, it won't break the bank. "In a new build, the cost of designing and installing our system in a 35m² kitchen-diner would generally be between £1,000 and £1,500," says Daniel Lodge, sales director at Fastwarm. So, what do you need to consider when specifying underfloor heating for your self build?

System design

Modern underfloor heating systems are designed to be divided into zones, linked back to manifolds that regulate the flow to each area. Individual room thermostats specify the required temperature in each zone. Naturally, the UFH setup needs to integrate effectively with your chosen heat source and controls. which might include smart features to further enhance performance and running costs.

Your engineer or UFH supplier will develop the system design in relation to your seslf build project and brief. "They will perform a heat loss calculation, which considers different factors such as room size, insulation levels, window types and external wall areas," says George Skipper, sales manager at Cli-Mate. This will indicate the outputs required to deliver your desired comfort levels.

"The next consideration is how to deliver that output efficiently," says James Lavers, design services supervisor at Nu-Heat. "Key points to bear in mind are the floor construction the UFH is being installed on, plus the heat source and your chosen floor coverings." All of these factors will inform the system type, best spacing between pipe runs, their length and optimum flow temperatures to ensure an even heat distribution.

Tiled floor coverings enable the highest outputs (a decoupling membrane should be specified to prevent cracking), but it's possible to install UFH beneath all manner of finishes, including engineered wood and even carpet. The system just needs to be specified to suit.

Floor build-ups

"When it comes to new builds, you have full control over the floor construction, which allows you to design with the UFH in mind, incorporating sufficient insulation and the correct screed thickness for optimal heat distribution throughout the living spaces," says Daniel. For example, a typical install on a concrete floor structure might be built up as follows: subfloor; rigid insulation; pipework embedded in screed; and finally, your floor covering.

Traditionally, the screed would be a 75mm thickness of sand and cement. But thinner, self-levelling products are now available that are quicker to install and cure (dry out). Some systems take advantage of this to maximise floor-to-ceiling height (with build-ups as slim as 15mm), while also allowing your trades to walk on the surface (and get on with their works) sooner than with standard screed.

There are alternative solutions available for different floor constructions, such as timber joists. One option is to set the pipes between the joists in spreader plates. This is great for the quick response times we might look for in bedrooms and bathrooms, which typically only require short bursts of warmth. A thin-screed version can be fast-response, too; for joisted floors, a membrane is used to hold the pour in place.

Maximising UFH performance

One key aim is to keep each circuit (to/from the manifold) to an optimum length; generally, that's up to 100m for 16mm-bore pipes. Longer loops can hinder the efficiency of your system and lead to an uneven spread of heat, due to increased resistance and pressure loss. "The manifolds should also be situated to ensure the best output, whilst minimising pipe traffic that create hot spots," says James.

The gauge of pipe is also important to consider. "Small bore versions of 12mm or under, might be unsuitable for some low-temperature water systems," says Tom Edmunds, general manager at Wunda. "Larger bore pipes, such as 15mm or 16mm, can carry a greater volume of water, allowing the system to operate at the lowest possible temperature and use far less fuel."

Your UFH circuits should be zoned effectively, too. "This allows for better control over the system in different areas, ensuring energy isn't being wasted by heating unused rooms," says George. You can take this a step further by incorporating an intuitive smart control system in your home to help manage schedules, monitor energy use, adjust temperatures remotely and more.

Adequate floor insulation is another major factor; you don't want the warmth from your UFH going straight down into the ground. Most new builds will feature at least 200mm of high-quality floor insulation (you'll probably see more like 300mm in the lowest-energy homes).

Installation know-how

Quality installation is pivotal. Some companies are set up to design, supply and fit a complete UFH system – or possibly even your whole central heating setup. Others might provide a schematic for your own heating engineer to work from. Either way, professional fitting is recommended, not least for warranty purposes.

The pipework should be laid out as per the designed pattern and spacings, taking care to avoid aggressive bends or kinks. Critically, your installer should pressure test the system before the screed goes down. "Skipping this step can result in undetected leaks, which are costly and difficult to fix once the floor is complete," says Daniel.

When it's time to commission, warm water is introduced to the pipework gradually. "Ensure your manifold has a temperature blending mixer, which allows you to slowly adjust the water temperature entering the system, giving time for it to settle," says Tom. This lets both the screed and floor covering to acclimatise to the heat from the pipes. "This is particularly important for more sensitive materials, such as luxury vinyl and engineered wood, which have a maximum recommended floor temperature of 27°C," adds Graham Lee, sales director at JK Floorheating. "Start at 25°C input water temperature and start to slowly increase this over several days."

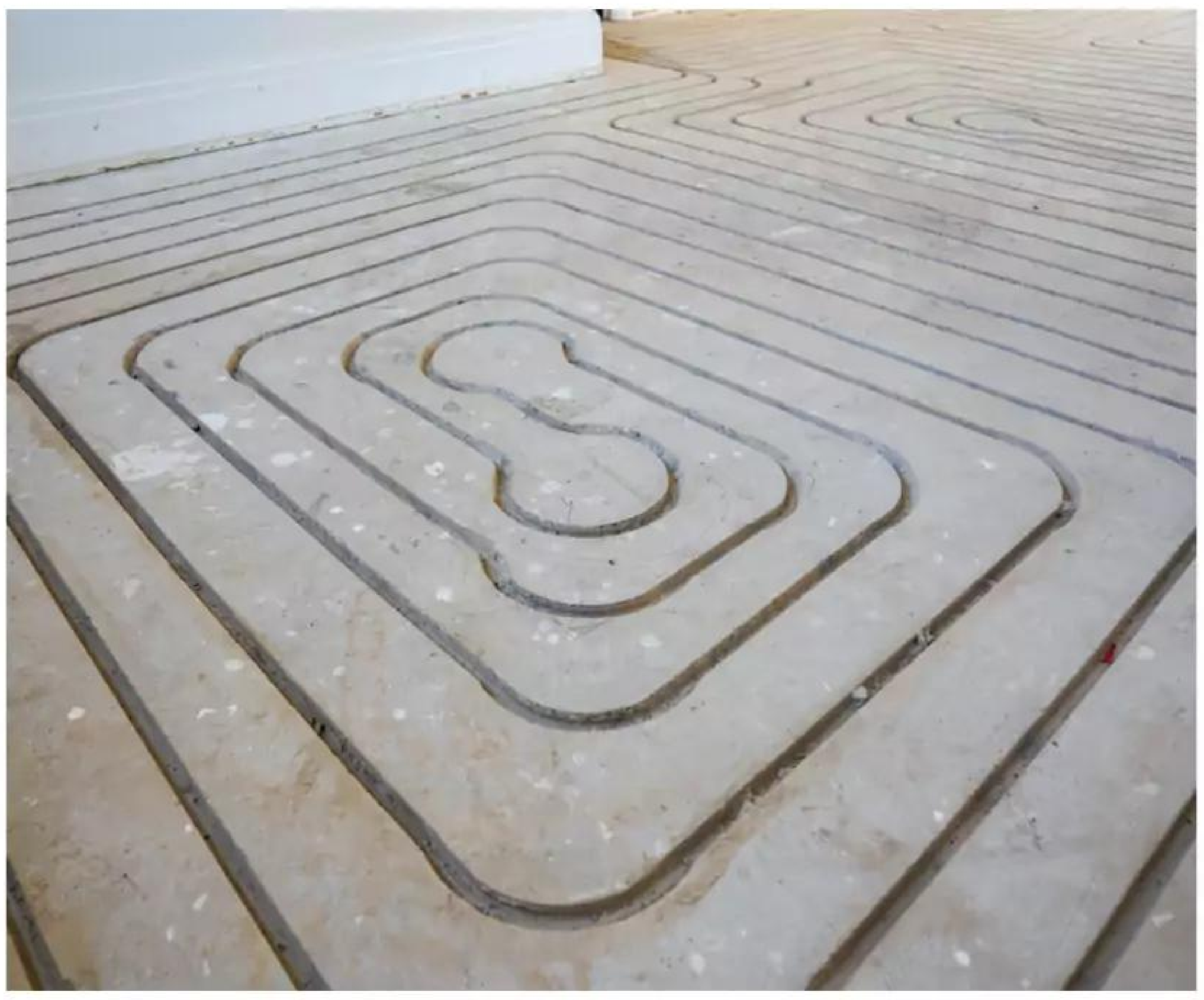
QUICK GUIDE RADIATORS

Modern radiators are available in a wide range of configurations and styles, with a raft of features to enhance efficiency and usability. They shouldn't be ruled out for a new build – whether as the primary emitter or limited to certain zones. For instance, many self builders decide to opt for UFH on the ground floor, switching to radiators for bedrooms or bathrooms (although UFH is excellent for taking the chill off underfoot when you step out of the shower). Specification is also pretty simple – with options available to suit low-temperature systems such as heat pumps – and, in a new house with decent insulation levels, you can expect high-quality performance and great controllability.

Plumbed-in radiators are cheaper to run than electric models; but dual-fuel versions are also available if you want the flexibility to switch. Both can be fitted with smart controls that allow for precise temperature management, scheduling and zoning. "Functions like holiday mode will prevent pipes from freezing while you're away in the winter, while open-window sensors will automatically turn the radiator off if a temperature dip is detected, enhancing efficiency," says Nick Duggan, managing director at The Radiator Centre.

A common criticism of radiators is that they're bulky, taking up valuable wall space. The industry has undoubtedly responded to this: it's now easy to find stylish options that can blend into your interiors scheme or act as artworks in their own right, opening up more options for placement. "You may not even realise you're looking at a radiator at all," says Nick. You will, however, pay considerably more for designer versions than standard products.

The sleek Soho model from The Radiator Centre uses approximately 80% less water than a traditional tubular multi-column radiator, improving efficiency. It's also available as an electric model



Left: The JK Floorheating solution involves a routing channels within the screed, providing evenly spaced grooves to accept the UFH pipework

CONTACTS **Cli-Mate** 01284 339669 www.cli-mate.co.uk **Fastwarm** 01268 744479 www.fastwarm.com **JK Floorheating** 01392 341490 www.jk-gb.com **Nu-Heat** 01404 378069 www.nu-heat.co.uk **Robbens** 01424 851111 www.underfloorheating.co.uk **The Radiator Centre** 020 3968 9920 www.theradiatorcentre.co.uk **UFH 1** 01302 276199 www.underfloorheating1.co.uk **Wunda** 01291 634145 www.wundagroup.com

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QUICK GUIDE TO

BIOMASS & STOVES

Biomass appliances can be a stylish, low-carbon heating option. From efficient room-only stoves to whole-house solutions, here's what you need to know

Above: Featuring a sleek steel construction with cast-iron door, the Loxton 3 woodburner is a stylish 4kW stove ideal for heating smaller rooms, with an optional cast-iron hot plate to heat a kettle, prepare one-pot meals or keep dishes warm. It won the Best Stove gong in the 2024 Build It Awards

If you're investigating the options for a sustainable, low-carbon and efficient appliance to power your property's central heating, a biomass solution – such as a woodburning stove or biomass boiler – could merit a place on your shortlist of contenders. Though the term biomass can be used to cover all types of plant matter, a modern setup is typically fed with wood in the form of logs, chips or pellets.

Biomass boiler basics

These appliances, which can output to central heating and hot water, typically offer over 90% efficiency. They can make a lot of sense for larger new properties that are off the mains grid, both financially and in terms of minimising carbon emissions versus a conventional gas or oil boiler. If you're creating a well-insulated house, then biomass can be used to provide your domestic hot water (DHW) and any space heating requirements. Just make sure you size the appliance properly so that you're not overheating your new home.

These boilers require a decent amount of space, ideally in the form of a plant room. They're larger than conventional boilers, plus additional storage will be required for the chips or pellets you use to fuel the system. Automated hoppers are available to keep the boiler fed; but there will always be some user input and maintenance required with a biomass appliance.

Woodburners

Standalone stoves are more generally specified as secondary room heaters – offering the cosy ambience of a real-wood fire, albeit with far greater efficiency (at least 75% to meet Ecodesign standards) and a much cleaner burn. It is technically possible to use a stove as the main space heating system in a super-efficient house, but this is rare. Some models can output to a hot water cylinder via a back burner.

From contemporary inset stoves to traditional matt black fireboxes on four legs, there are plenty of stylish designs to choose from, each with their own benefits. In addition to the aesthetic advantages, woodburners are immune to interruptions from, say, a power cut.

You'll need a HETAS, OFTEC or similarly accredited specialist to design, specify and install your biomass system. In modern airtight houses, the appliance will need a direct air supply, channeling air to the fire from outside, rather than from the surrounding room.

Gas stoves are still an option for the timebeing, and more controllable than log burners, but are set to be phased out once the Future Homes Standard kicks in. Electric models are the alternative, and the best do get close to replicating the real-fire effect.

Is biomass sustainable?

Sourced responsibly – ideally from local, well-managed forests with sustainable replanting schemes – wood can be a low-carbon fuel. In any case, the biomass for pellets and chips generally comes from by-products of forestry. So, there's a case it could be considered waste fuel. In terms of running costs, a pellet-fuelled boiler should be similar to gas or an air source heat pump. If you're lucky enough to be able to source, dry and replenish on your own land, you'll save even more on bills and carbon.

In a 2023 consultation, the government noted that the Future Homes Standard would be "unlikely to allow the installation of biofuel systems, including wood and manufactured solid fuels." But in April this year, in response to a letter from the Stove Industry Alliance, the government has confirmed woodburning stoves will continue to be permitted as secondary heat sources in new builds, under the Future Homes Standard. So, happily, you'll still be able to enjoy a cleanburning, real-wood fire in your self build. At the time of writing, it remains to be seen whether biomass boilers will be recommended for one-off homes in the Future Homes Standard; though the consultation does tout the benefits of biofuels for district heating networks.

CONTACTS **Charlton & Jenrick** 01952 200444 www.charltonandjenrick.co.uk **Eurostove** 01934 750500 www.eurostove.co.uk **Ecco Stove** 01527 857 814 www.eccostove.com **Dru** www.drufire.com **Jotul** www.jotul.co.uk **Mendip Stoves** 01934 750500 www.mendipstoves.co.uk **Percy Doughty** 01204 868550 www.percydoughty.com **Windhager** 01225 892211 www.windhager.co.uk **Stovax** 01392 474000 www.stovax.com

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Left: Rigid ventilation ducts being run through open metal-web joists as part of Total Home Environment's HPV installation at the Build It Education House

MODERN VENTILATION

Discover how to maintain good air quality in an energy efficient home

A highly airtight house that lacks decent ventilation can feel stifling, creating an environment that will likely lead to a buildup of condensation on the walls and ceiling. This can affect occupant wellbeing through the growth of mould, not to mention potential damage to the structural fabric. In older, leakier houses, natural ventilation occurs through gaps in the building envelope. Trouble is, we don't want this kind of uncontrolled airflow in a modern home, as it leads to draughts and heat losses that would negate the benefits of a high-performance fabric. So, to deliver good air quality in a self build house, you'll need a well-developed ventilation strategy.

Ventilating an airtight house

To achieve controlled airflow that underpins your home's energy efficiency, while simultaneously delivering a comfortable and healthy indoor climate, most self builders will need to invest in a mechanical ventilation system.

Fundamentally, these solutions involve running ducts throughout a house, in the walls and floor structures. The conduits are hooked up to a central unit that works to extract stale, humid air (especially form wet zones, like kitchens and bathrooms). These systems run 24/7 and can detect and react to issues like spikes in humidity, moving into boost mode to clear the issue.

Crucially, your setup will also need to replenish that air with a fresh supply brought in from outside. With central mechanical extract ventilation (cMEV), this still has to be from background ventilation (where intake is through trickle vents etc). If you want to reach the highest standards of airtightness, you won't be installing such measures. Instead, you'll need to specify a ventilation system that can both extract stale air and pipe in a fresh supply.

The most common option here is mechanical ventilation and heat recovery (MVHR), which also gives you the benefit of recycling around 90% of the warmth from outgoing air. A fan-powered air-handling unit in the attic or plant room is the beating heart of an MVHR setup. This is connected to a network of ducts and extract/supply points throughout the house. Stale air is drawn out of each room (especially bathrooms and kitchens) and passes through a heat exchanger before being released outdoors. In the cooler months, this warmth is introduced to the fresh flow of air which passes into each zone via the network of ducts. The new air is filtered to deliver great indoor air quality.

For efficient operation of MVHR, you want clear, straight runs wherever possible. So it's best to design it in from the conception of the house, and take advantage of options such as open metal-web joists to run the ducts. You'll also need a good level of airtightness (a maximum of three air changes per hour, although the less air leakage the better). This is best achieved through your house designer planning a continuous airtightness barrier, with clear drawings to ensure the sealed envelope is simple to realise on site.

All-in-one systems

Why not go for a setup that takes care of all your heating, ventilation and cooling (HVAC) needs in one easy-to-manage package? These solutions go far beyond the basic aircon you might have experienced in hotels or your car. The Unico System, for instance, is a centralised air handling technology that delivers efficient heating, ventilation and cooling, along with fresh pre-filtered air. It uses small duct technology to enable flexible installation in both new builds and existing houses, and is capable of removing 30% more humidity than traditional HVAC, further reducing condensation risk. It can also be partnered with other systems, such as heat pumps or MVHR, where required.

Another modern option is heat pump ventilation, such as Total Home Environment's HPV, which integrates air source heat pump and MVHR technology into a single system. In a highly insulated and airtight house, this can deliver excellent heating efficiency, along with an element of cooling in the summer months. Total Home also offers an HPW hot water cylinder, with its own integrated micro heat pump, to deliver that side of things, too.

CONTACTS **Blauberg** 0116 216 0650 www.blauberg.co.uk **Mark Heat Recovery Systems** 07547 163939 www.markheatrecoverysystems.co.uk **Rega Vent** 01767 600499 www.rega-uk.com **Total Home Environment** 0345 260 0123 www.totalhome.co.uk **The Unico System** 01384 422094 www.unicosystem.co.uk

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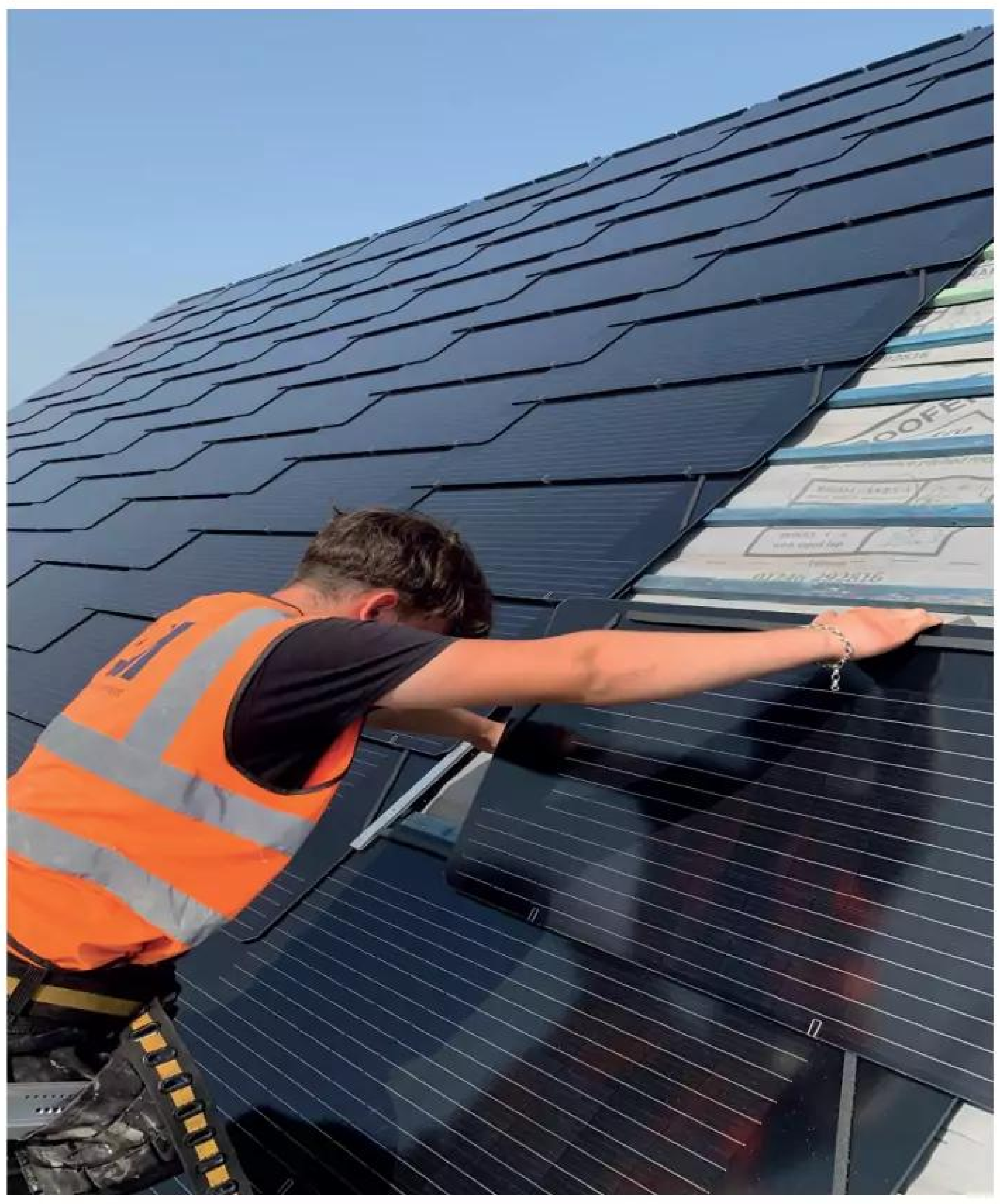
MAKING THE MOST OF SOLAR PV

Drawing on his own experience of living with solar panels, Gerald Cole gives his top tips on how to achieve a high-quality PV install



Sunlight is the UK's most abundant energy source. According to Octopus Energy, it produces an annual average of 100kW per m² on flat ground and 110kW on south-facing roofs – all entirely free. Using it to reduce your energy bills and reliance on the national grid requires fitting solar photovoltaic (PV) panels, which convert the light energy into useable electricity.

There are already over 1.5 million solar panels fitted to British homes – my own house being among them. My 3.04kWp, 16-panel installation was fitted in 2011, under the most generous Feed-In Tariff (see 'how much will I save'). It took me just seven years to be able to recoup its £10,000 installation cost.

In the first year, my system produced 2,052kWh of electricity. In 2024, it generated 1,695kWh – which amounted to just over 70% of our household's total annual use of 2,333kWh (although we won't have used all of that 70% ourselves). The reduction in output is probably due to a combination of having slightly fewer sunny days and expected power output degradation (all panels will lose some efficiency over time).

So, if you're considering installing this type of technology, how can you make the most of it?

Are PV panels suitable for my project?

Solar panels are most productive facing south at an angle between 30° and 40°, which happily matches the standard roof pitches of UK homes. Ideally, your self build plot should have a southerly aspect, although roofs that face south-easterly or south-westerly can also work perfectly fine. Even flat roofs can be fitted with solar panels on specially angled brackets.

In terms of sizing the solar array, you can gain an idea of your requirements using solar panel calculators; but by far the best bet is to actually seek advice from a quality installer. For an average PV system that produces around 3.5kW at peak efficiency, you will need between 10m² and 20m² of suitable roof space, which equates to between six and 12 panels (depending on the individual panels' output). The stronger the sunlight, the more power is generated, although even on cloudy days you'll see some benefit.

To maximise production, no panel should be overshadowed by trees, chimneys or neighbouring properties between the hours of 10am and 4pm throughout the year. If this isn't possible, a solar PV array could be fitted on garages, garden offices or anywhere on your plot that receives sufficient daylight – though you may need to extend the electricity supply.

If you want a seamless finish, one option is to opt for specialised solar roof tiles, available from companies like GB-Sol and Solex. These can mimic clay tiles, slate

Top: Catnic SolarSeam is a discreet, MCS-certified solar laminate that can be installed simultaneously with a standing seam metal roof, maintaining the covering's sleek look. A 3.68kW system would typically require just over 31m² of roof space

Above: These Solar PV panels from Solex are designed to look more like a standard tiled roof

IS IT WORTH BUYING A SOLAR BATTERY?

If I was considering installing my system now, I would be tempted by a battery system. This allows you to store electricity produced during the day for later use, during the evening. It can also store low-cost, night-rate grid electricity to further optimise bills. A battery is most cost-effective for PV systems over 2kWp, and for owners who can't make full use of their panels during the day or don't have an electric car.

Battery costs are currently quite high; close to the price of the solar PV panels themselves, which will significantly extend the payback period. However, they're likely to fall as installation rates begin to increase. You will also need to install a smart inverter, unless the battery includes one already, and a bi-direction smart meter.

PV batteries are usually fitted indoors, but if space is a little tight then IP66 rated versions are also available which can be easily installed outside with well-ventilated weather protection, though they should never be placed in direct sunlight. Ideally, you'd combine your system with a Time-of-Use electricity tariff, which charges your different rates at different times of the day.

An alternative is to opt for a thermal rather than electrical battery. With this approach, both PV and cheap rate grid electricity are used to heat a highly insulated thermal store, which can then output to radiators, underfloor heating or domestic hot water.

Right: A system's battery and inverter are typically installed in a dry, well-ventilated garage or utility room. This installation is by Treadlighter

and even textured glass, though they are more expensive than standard units. Catnic's SolarSeam product does the same for metal-clad roofs.

How much can I save?

The success of an installation depends on matching your panels' production with your household needs. If, for example, your home is unoccupied during the day, most of the electricity that's created will go to the grid. The payments that you receive for this are substantially less than the grid charges you for electricity. If you work from home, have a young family or are retired, however, bright sunshine is the signal to turn on your most energy intensive items, from washing machines to immersion heaters, which will effectively be free. There are also smart home systems available (an extra investment on top, of course) which can help to manage usage.

A major benefit of solar PV is the ability to sell any electricity generated that you don't use back to the grid. Under the Smart Export Guarantee (SEG) scheme, major energy suppliers are required to pay a set rate for each kilowatt hour (kWh). Rates vary dramatically, so you may want to consider moving suppliers to take full advantage of the payments. SEG replaces the old Feed-In Tariff, which ran from 2011 to 2019 and (initially, at least) offered generous cashback payments for 25 years (reduced to 20 years for later installs).

According to the Energy Saving Trust (EST), a typical 3.5kWp solar PV panel system (producing 3.5kW of electricity at peak efficiency) will cost around £7,000. Depending on location and installation quality, the EST's research suggests this should reduce bills by between £500 and £690 a year (including SEG payments) – resulting in a payback period of around 10 to 14 years. This stretches to more like 20 years in Northern Ireland, where energy prices are different.

Who should install my PV system?

Both your solar panel system and its installer should be registered under the Microgeneration Certification Scheme (MCS), as you'll need an MCS certificate to qualify for energy providers' SEG schemes. It is also essential to check and ensure that your installer is a member of either the Renewable Energy Consumer Code (recc.org.uk) or the HIES Consumer Code (hiesscheme.org.uk). All three of these organisations list approved contractors across the UK. It's advisable to obtain quotes from at least three different installers, including estimates of the panels' outputs.

Installation should be easy on a new build, not least because scaffolding is likely to be already in position – plus you can easily opt for a discreet flush-mounted system that sits in line with the roof tiles. For on-roof systems, it is important to check whether your installer will include bird proofing around the perimeter of the array. Pigeons tend to find the underside of PV panels an attractive nesting spot and their waste is caustic enough to corrode DC cabling.

Once installed, solar panels are virtually maintenance free and product warranties of up to 30 years are fairly common. They do lose capacity over time, typically at a rate of around 0.5% to 0.9% per year, but will still produce useful power for up to 40 years. Inverters, however, typically have warranties of between five and 10 years and are likely to need to be replaced several times over the lifetime of your system.

GERALD COLE

Gerald Cole is an experienced self builder and was the launch editor of SelfBuild & Design magazine. He has over 25 years' experience providing practical advice, based on his own home building experiences, and is the author of Build Your Own Brick House.

CONTACTS

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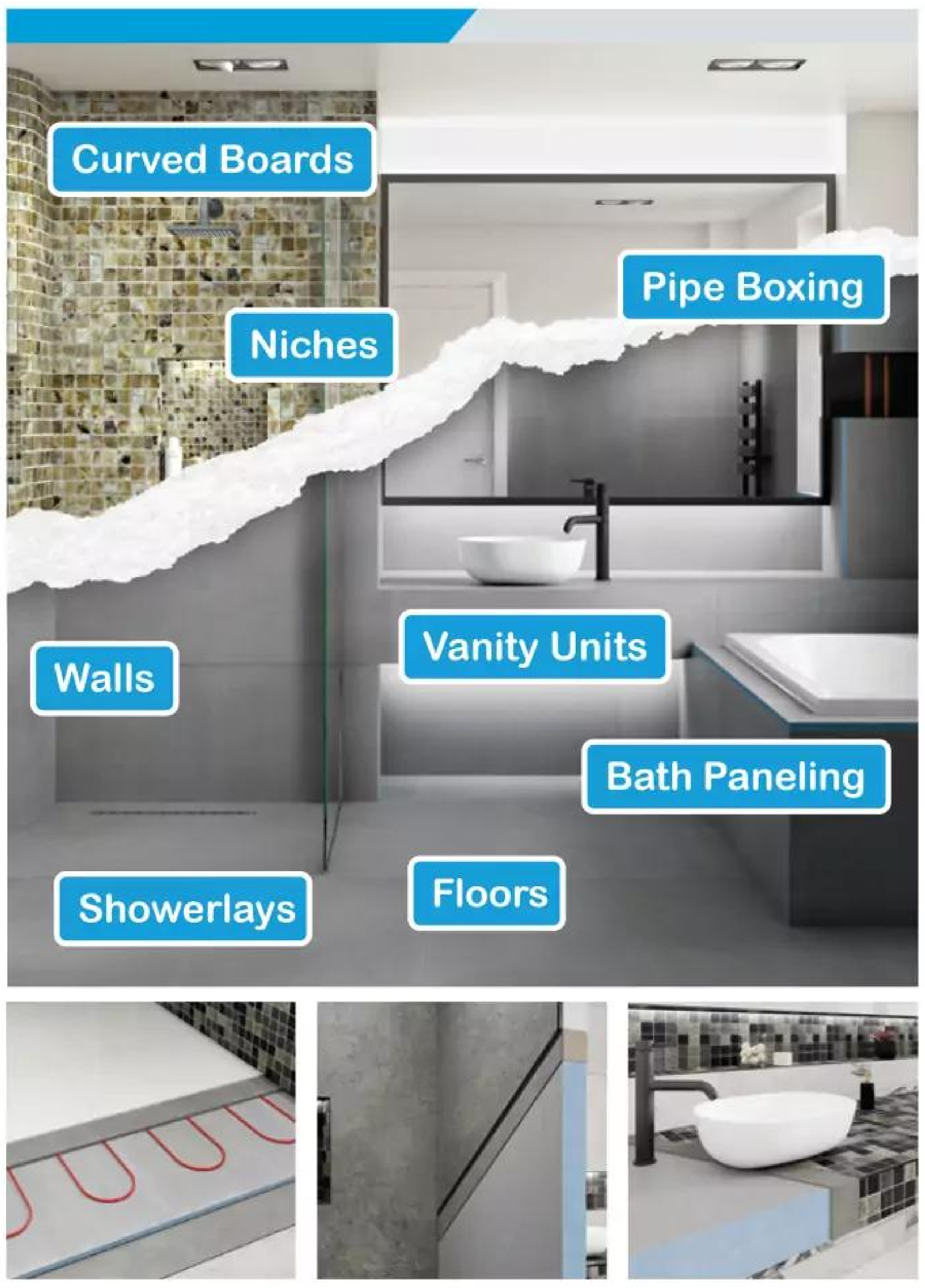
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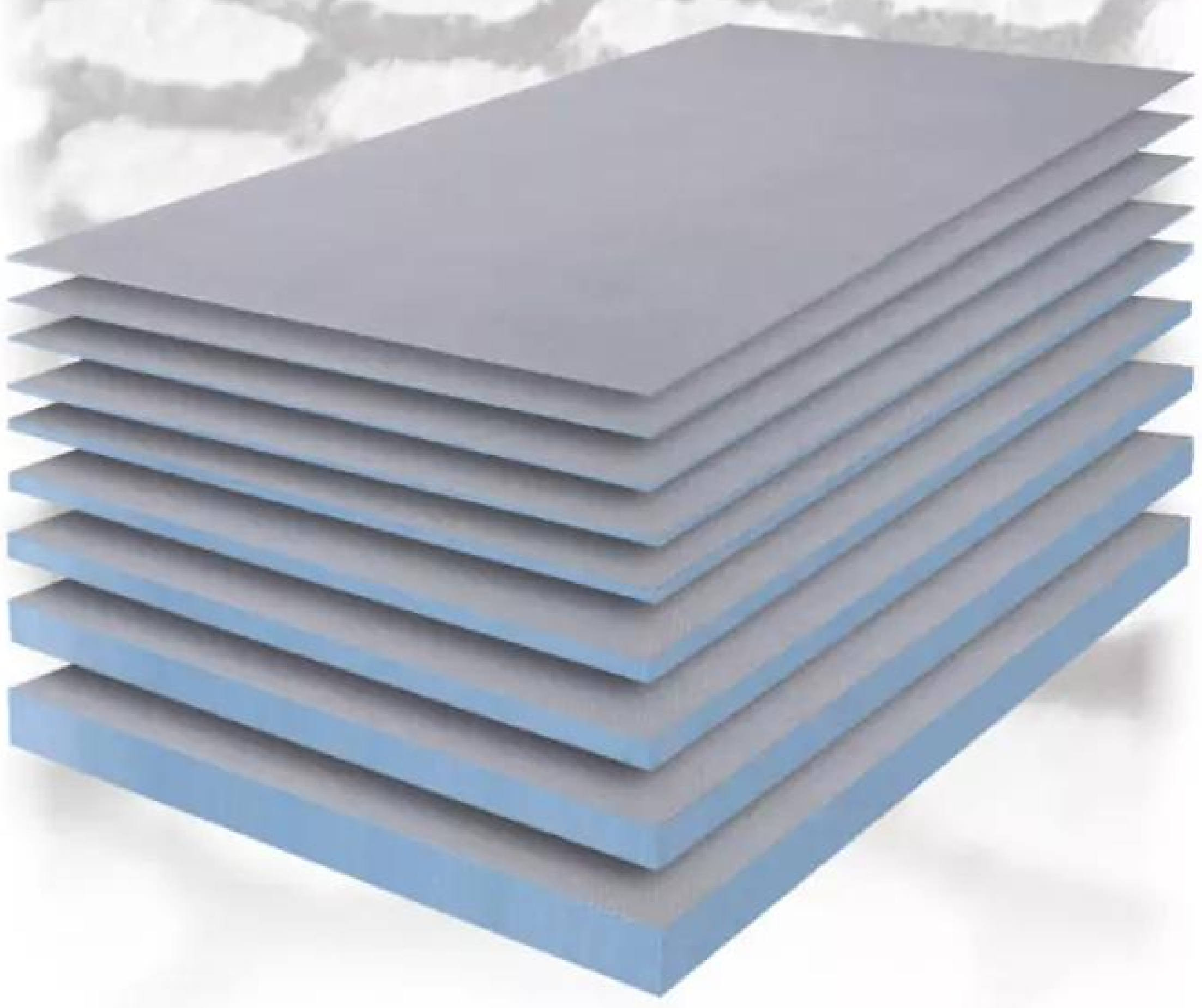

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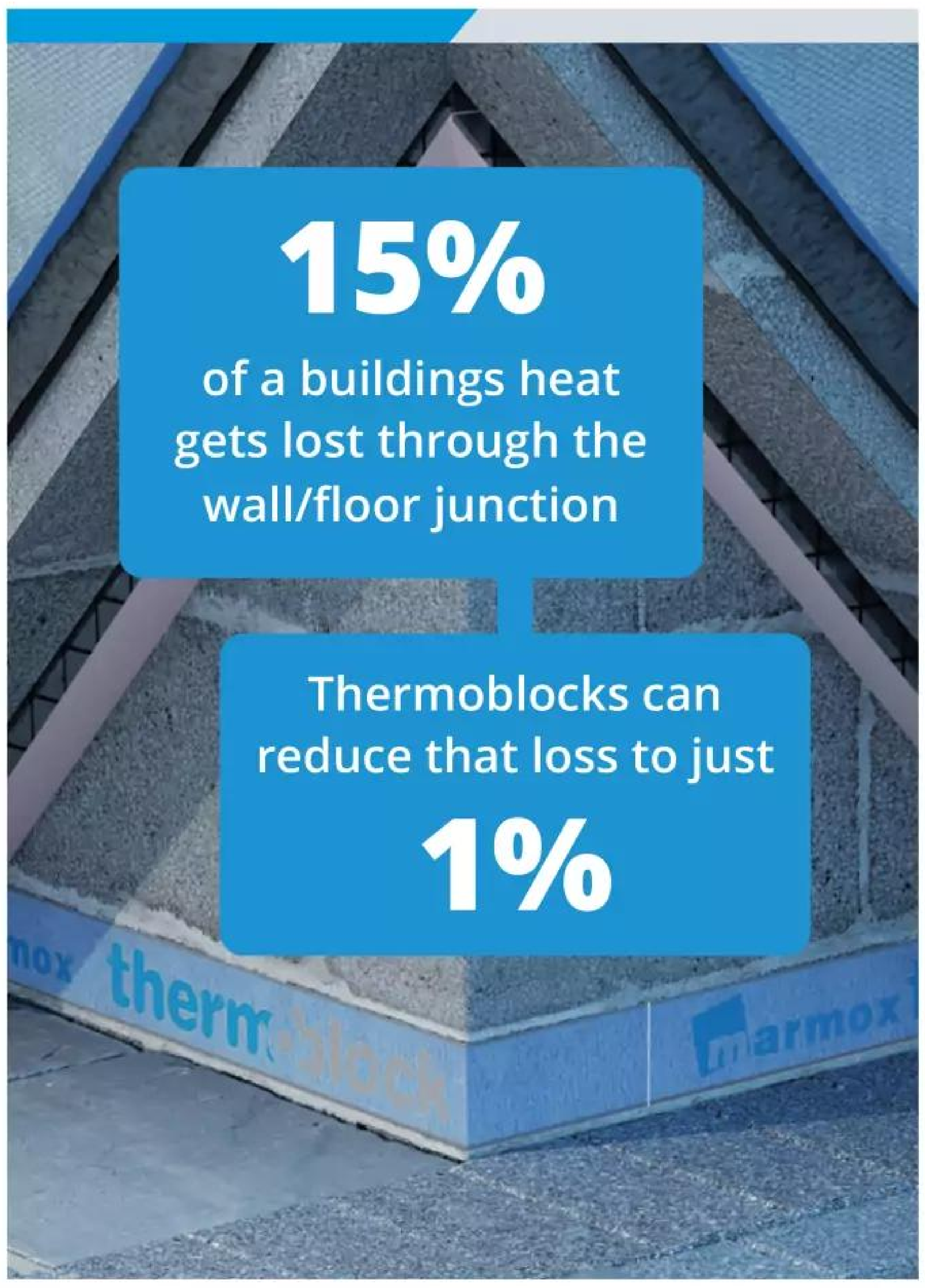

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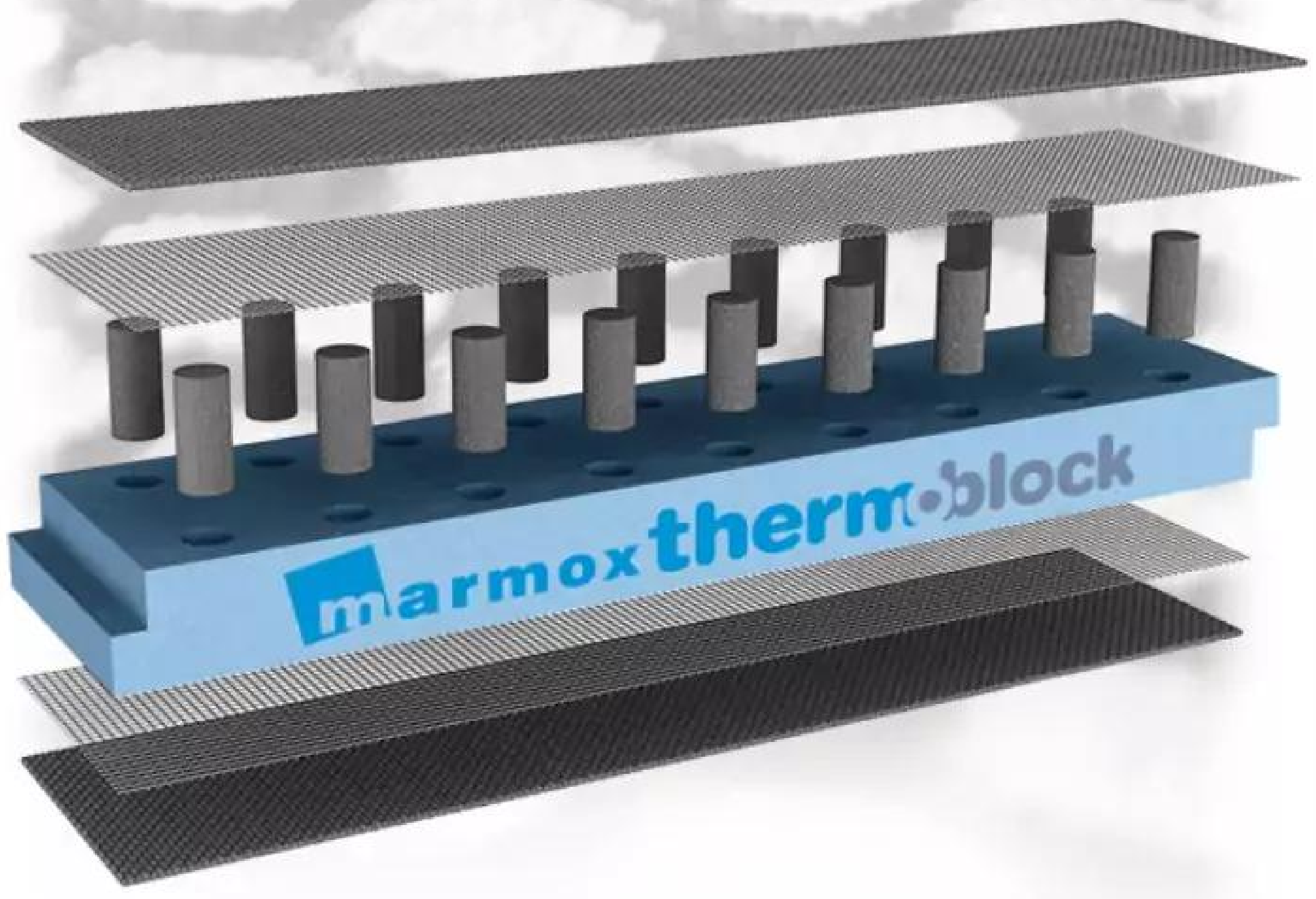
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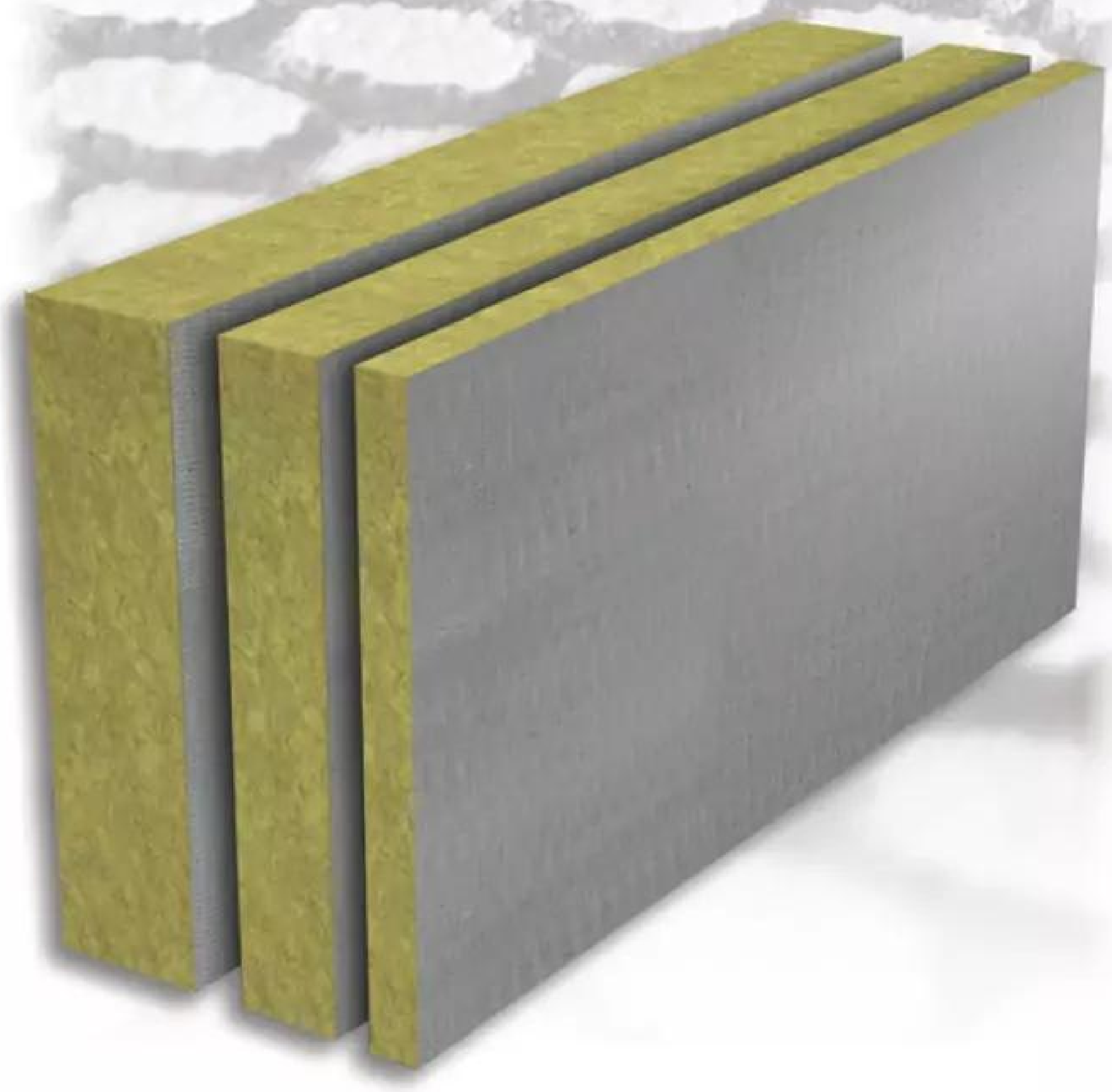

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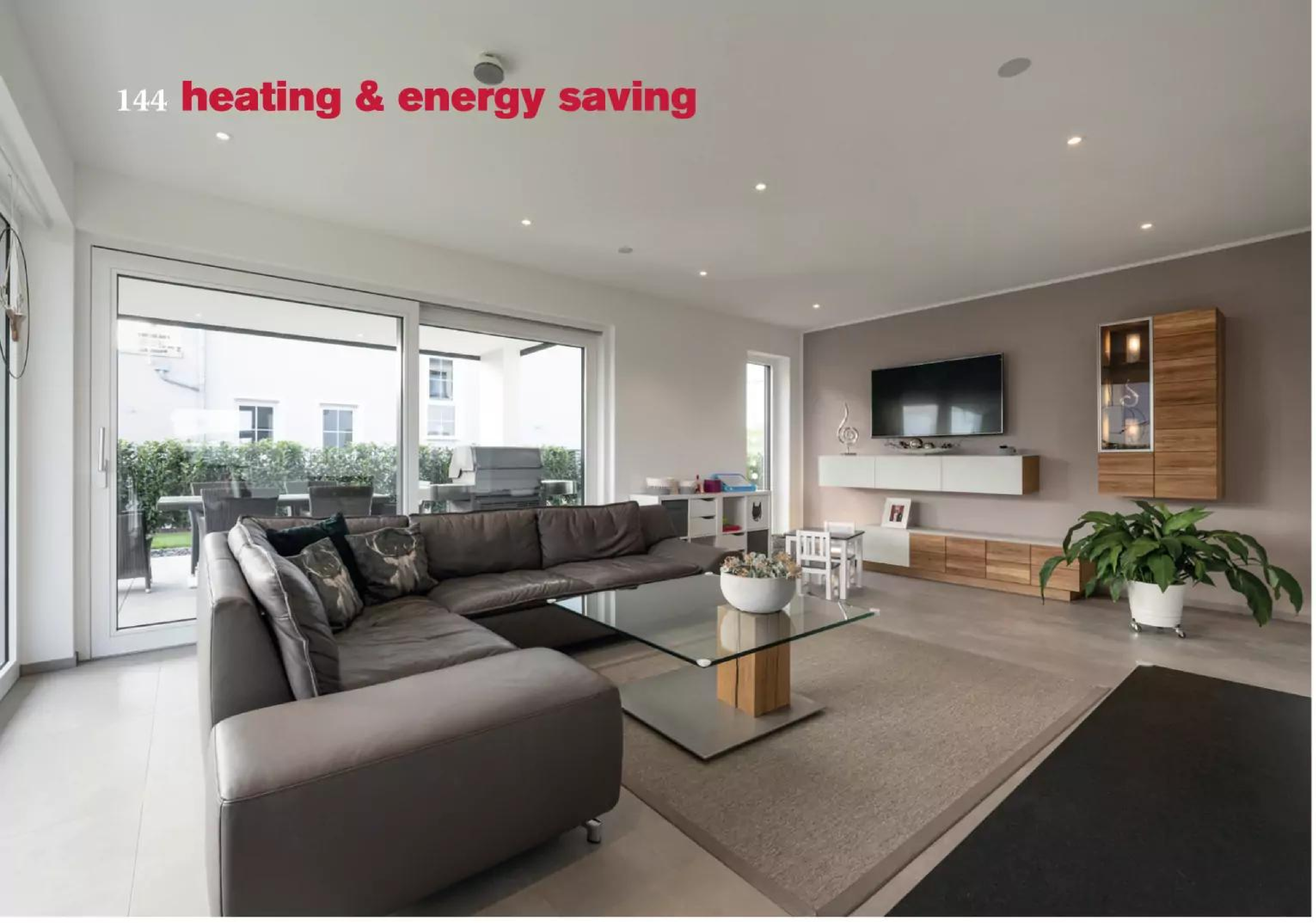


Smart home success

Want greater comfort, convenience and control over how your property functions? Here's why a home automation system will prove a sound investment

Above: Lighting scenes, efficient temperature control, automated shading and door entry were key criteria for this project by Theben

Below right: Gartec's Artico HomeLift Compact won Best Home Technology Product at the 2024 Build It Awards. The £18,500 starting price makes it a credible option for people with mobility limitations to stay in their homes, rather than having to move

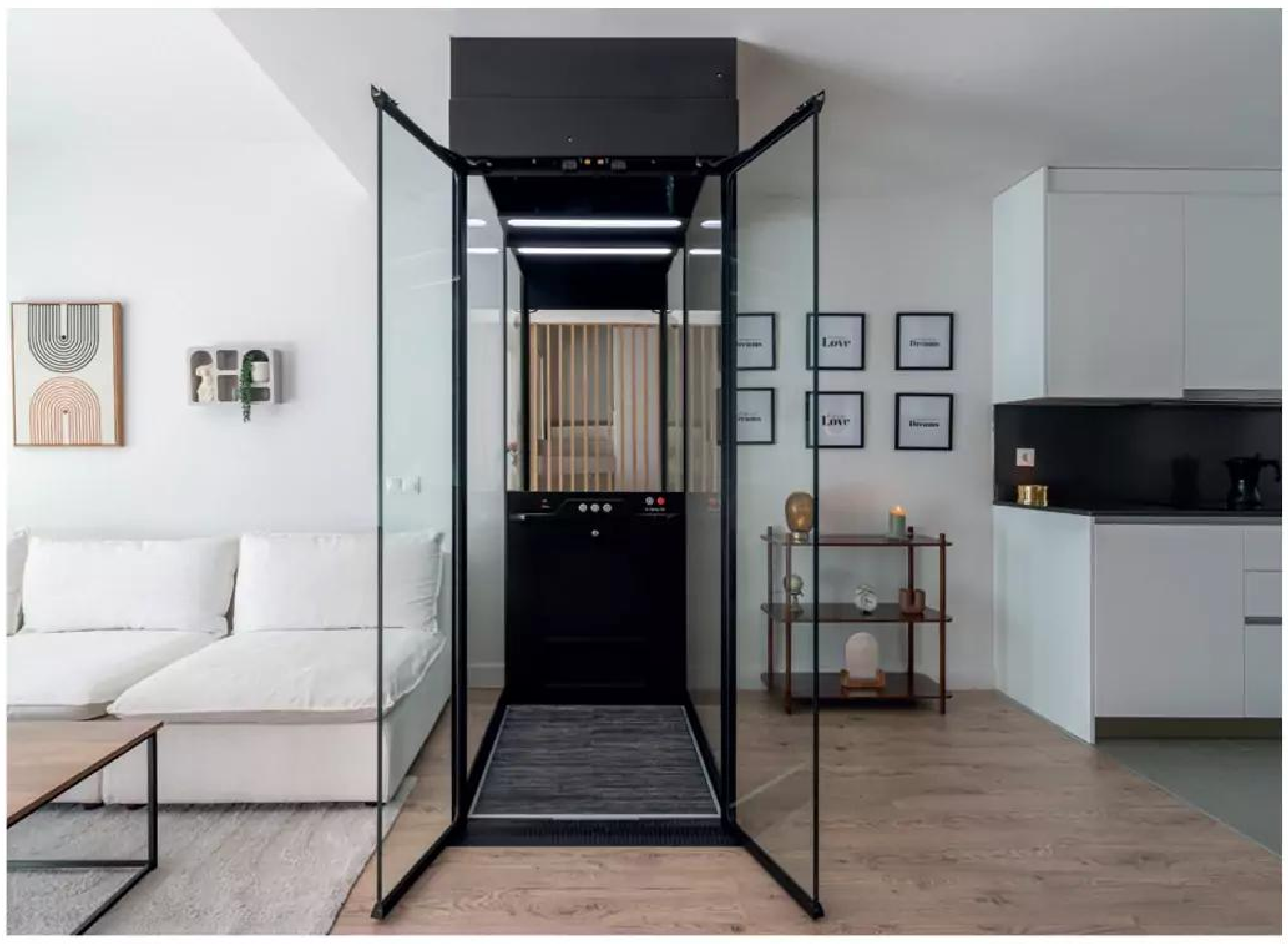
Smart home technology has come on leaps and bounds over the past few years, so it's no surprise that more and more self builders are finding ways to incorporate it into their everyday lives and their home's infrastructure. All houses need at least a basic level of heating, lighting and security. Smart home tech, however, can give you greater control over how the building runs – enhancing comfort levels and convenience, boosting efficiency and saving you money on bills in the long-term.

Getting it right is all about integrating devices that will improve how you interact with your property. "A real smart home should make life easier and give you more time for living, rather than cluttering up your day with tech gimmicks you have to babysit," says Philipp Schuster from Loxone. So, what do you need to know when it comes to specifying a successful smart home setup?

What can a smart home do?

There are many advantages to making the switch from traditional to smart electrics. A well-designed and seamlessly integrated automation system has the potential to transform the way you interact with your property and how it can perform for you. Broadly speaking, smart technology can be divided into four core considerations: heating/ventilation; lighting/shading; security; and accessibility. You might decide to cherry pick just a few of these elements or choose to bring them all together in one whole-house package. Here's a quick look at each:

- **Efficiently regulate comfort levels** – smart homes can go beyond programmable heating cycles; the most intelligent systems can optimise energy consumption, respond dynamically to your usage patterns, anticipate heat loads based upon external temperatures, offer pre-heating when you're on your way home and more. Mechanical ventilation systems, electric rooflights and blinds can all be integrated into the setup, too, with the potential to respond to internal air quality, sunlight levels etc.
- **Set lighting moods at the touch of a button** – with far fewer wall switches than in a traditionally-wired house. For example, your kitchen-diner zone might have options for cooking, working at the island or dining table, entertaining and more. Your system can even be set up to supply motion-detected dimmed lighting overnight, so you can pop to the loo or get ready for an early start at work without waking up everyone else in the house.
- **Enhance security and convenience** – bolster your home's defences with video doorbells, keyless entry systems, motion-sensing cameras, door and window sensors, and more. This can include remote control and real-time alerts on your phone, so you don't miss anything. A popular option is to have a 'leave/enter the house' button that shuts down and secures your home when you exit, and wakes it up again when you return.
- **Make your home more accessible** – one of the biggest benefits of smart technology is that it can enable people to live independently for longer. Voice and touch screen controls reduce the need to physically interact with sockets, switches and appliances, for instance, while automating tasks such as adjusting temperatures and light levels can help to create a much more comfortable, well-connected and inclusive home environment.



System design

When planning your smart home, start by considering who will live in the property, both now and in the future, and what their needs might be. Think about how each person enjoys music or streams TV, for instance, who works or studies from home, what security provisions might be useful and what lighting controls are required.

Ideally, you should be developing your brief at the early design phases of your project – not after you've gone through planning. "Be clear on your objectives and essentials to begin with," says Darren Palmer, director of sales at Baulogic. A good smart home specialist will help you identify your must-haves and like-to-haves, as well as options that you may not have considered to ensure each room and the overall system deliver for your budget.

"It's best to work backwards when planning," says Jake Stephens, technical director at HiiLife. "Start by considering what room functionality is required. Once this is clear, the design phase can progress to what cabling infrastructure is needed, to ensure the equipment works effectively. This is the backbone of the system."

When creating a new home from scratch, look to integrate high-quality wiring from the outset. The least expensive cables an electrician will ever run are those installed when the building is still open – at first fix phase, before the plasterboard and finishes go on. So, it's well worth running the infrastructure now, even if you don't think you'll use it straight away, as this will make it cheaper to bolt on extra features in the future. "As a base package, we recommend focusing on the entrances, living area and landing, with a system that provides heating, lighting and security, which can be built on over time," says Darren.

Fully-wired systems are best for performance and functionality, but going for a wireless system is a great alternative. In fact, it can make a lot of sense to combine the two approaches – for instance, if you want to expand a wired setup without having to run any new cables.

Compatibility & futureproofing

At the heart of a successful smart home is simplicity and seamless integration; and that should go for both the initial installation and any future upgrades. "Your tech should feel like a natural part of your home, as opposed to being an add-on," says Jake. "All devices should communicate with each other and the control centre, allowing the user to operate the home from one point."

To maximise compatibility, work with your installer to ensure you're using systems and devices that adhere to widely adopted standards, such as KNX or Matter. These connection protocols enable a range of smart home products to communicate effectively with one another, irrespective of the chosen manufacturer.

Speak to them, too, about how future upgrades are handled: many suppliers will offer free remote firmware updates, troubleshooting, and additional support for various issues, for instance. Note that some cloud-based services may become chargeable after an introductory period, typically around a year. This tends to be more common for doorbell systems and security cameras.

One of the most critical steps for any smart home project is to ensure there's a comprehensive handover with the installer once everything is up and running.

While the front end is designed to be incredibly intuitive, what lies under the hood is often much more complex – and if you're reading this magazine, chances are you'll want to know exactly how it all keeps humming, what bits you should and shouldn't adjust yourself, and what to do if you want to add to or alter functionality in future.

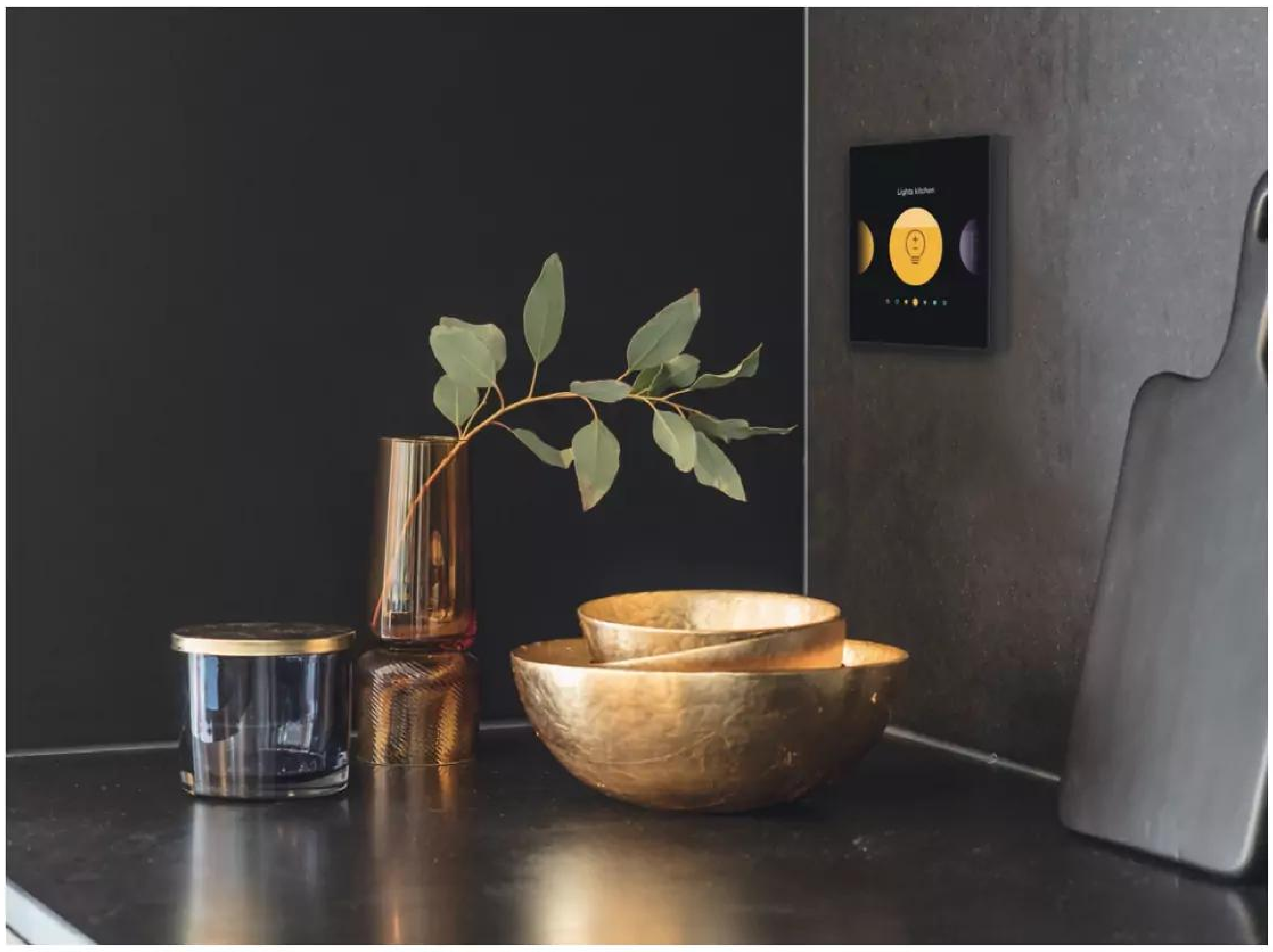
DOES A SMART HOME COST MORE?

If you're worried that making your home more intelligent could balloon your build budget, it's time to think again. "A smart home is close to cost-neutral from an infrastructure perspective, especially if you use an open protocol system," says Paul Foulkes from Theben. "Putting in KNX BUS cabling is faster, simpler and cheaper than running standard wiring." That's because a single BUS cable serves multiple functions – lighting, shading, thermostats etc.

"Imagine walking into a traditionally-wired house; you open the front door and on the right-hand side, there's a switch that does the hallway light. At the other end of the hall is another switch that does the kitchen light, and to the left one that does the living room," says Paul. "You also have another switch that does the stairwell, and two up on the landing. So, you've got at two three-way circuits, with up to four cable runs, done in 1.5mm copper wire. And that's before you add things like outdoor light switches. You can replace all of that with a single KNX cable, which is a 0.8mm copper BUS, with the flexibility to add in thermostats or an all-off function."

Ultimately, switching to modern wiring means you can enjoy a quicker install, using less copper cable, while adding in greater functionality. Using an open protocol like KNX also means you're not tied into a particular brand, giving you maximum flexibility for the future. From there, the fit-out for lighting, heating and blinds would likely look very similar to traditional electrics. The difference is just that they're all interconnected and automated, enabling you to pre-set scenes and moods to fit your requirements.

"People might say they've had a quote for a £40k smart home, and it's outside their budget," says Paul. "But this is where there's confusion between building automation and bolt-ons like network TV and sound, inbuilt speakers, security cameras etc, which might be 50% of that quote. When we give a spec and price to a customer, it deals purely with the hardware for building automation." So, it's your specification decisions where the costs mount up – £20,000 on cinema-quality screens and sound in multiple rooms, say, or dimmable colour-change bulbs and bespoke light fittings throughout. Those extra layers will always cost more, whether you choose to go with a connected smart home (and enjoy all the benefits it offers) or stick to traditional electrics.



Above: Niko Home Control's Digital Black is a sleek, discreet wall touch screen and thermostat, providing a user-friendly interface and intuitive control over up to 12 functions via pre-set scenes

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5 smart home pitfalls to avoid on your build

Theben's Paul Foulkes on why good planning, simple design and quality integration are key to creating a smart home that works for everyone

Many self builders now aim to integrate smart technology into their homes, but without careful planning, it's easy to end up with a system that's overcomplicated, frustrating or fails to deliver real value. A well-executed install should enhance comfort, efficiency and flexibility. Here are some common pitfalls to avoid, and how to build a smarter system from the ground up.

1 PLANNING IT TOO LATE

Thinking about smart technology as an afterthought is a costly mistake. Waiting until first fix or later can limit your options, add complexity or result in visible cabling and retrofit devices. While systems such as LUXORliving by Theben can be added later on, installing bus cable during the first fix will give you a robust foundation for a reliable and future-proof smart home.

This approach allows for easy expansion down the line, with minimal disruption. The best results come when planning is done alongside architectural and electrical layouts, ensuring the infrastructure is neatly and logically installed from day one.

2 OVERCOMPLICATING SYSTEM DESIGN

More doesn't always mean better. Overloading your home with smart features can make it harder to use, maintain and troubleshoot. A smart home should be intuitive, not require a manual to operate. Over-engineering also increases the costs and risks becoming quickly outdated. Instead, focus on simplicity. Prioritise core functions that improve everyday life and are easy to manage, such as lighting control, heating, shading and pre-set scenes.

3 NOT CONSIDERING EVERYONE

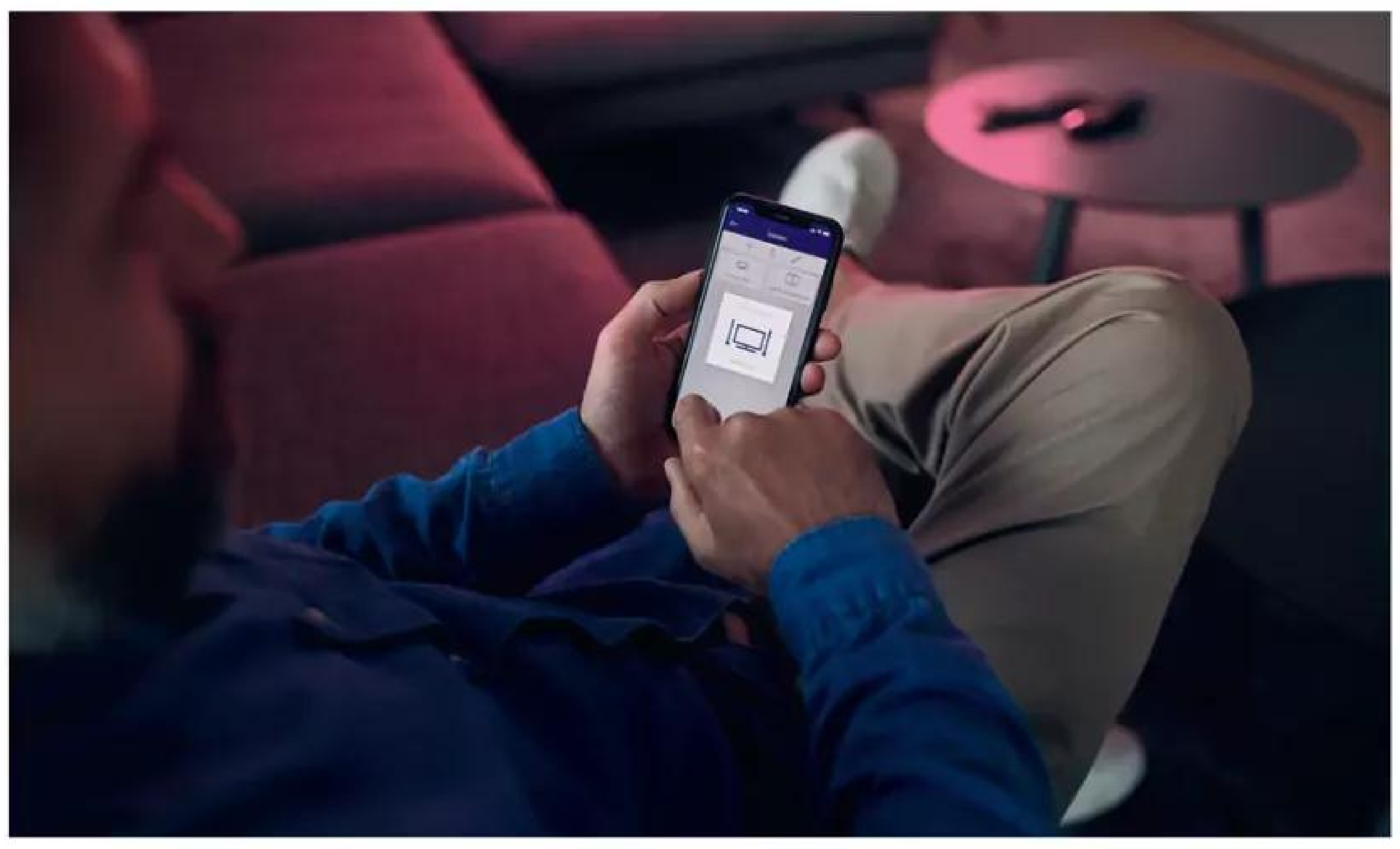
A smart home should work for every family member, not just the person who's setting it up. Systems that rely entirely on apps or voice control can exclude guests, children or those less confident with tech. Personalised setups are great, but only if there's still a simple way to turn on a light. Retain accessible features like wall switches and clear control points, so your home remains usable by all ages and abilities.

4 FOCUSING ON GADGETS

It's tempting to fill your home with the latest connected gizmos, but these often deliver novelty over substance. Look for integrated systems that enhance comfort and efficiency instead. Smart lighting that adjusts with the time of day, heating that responds to occupancy or blinds that manage heat gain can all contribute meaningfully to daily life. The best systems are those that quietly support how you live, rather than demand constant interaction.

5 MIXING TOO MANY STANDALONE DEVICES

Relying on multiple off-the-shelf smart products often leads to a fragmented setup, where every room has its own app or control system. Compatibility issues, software updates and manufacturer changes can result in unreliability over time. Opting for an integrated system ensures ongoing consistency and dependability. One key benefit of a KNX-based smart home is its open standard, so you can mix and match devices from different manufacturers to suit your design and functionality preferences, without sacrificing performance or compatibility.



Above: Control your home simply using an app such as the intuitive LUXORplay

Left: Automate home heating, lighting, shading and energy management

GOLDEN RULES FOR A SUCCESSFUL SMART HOME INSTALL

A smart home should feel effortless, improving comfort and efficiency without complexity. By planning early, prioritising simplicity and choosing a robust, integrated platform built on open standards like KNX, you'll avoid the most common pitfalls.

- **Start early:** Involve your electrical and smart home professionals at the design stage.
- **Keep it simple:** Your goal should be a system that every member of the household finds easy to use.
- **Focus on what matters:** Automating lighting, heating, shading and energy management will bring the greatest long-term value.
- **Plan for the future:** Laying bus cable at first fix gives you the infrastructure to expand or adapt your system as your needs evolve.
- **Choose integration:** Team open, flexible platforms like KNX and systems like LUXORliving to bring everything together in one cohesive package.

PAUL FOULKES is country manager at Theben Automation, with decades of experience in building controls, smart home systems and KNX integration across residential, commercial and public sector projects. Whether you're just starting your project or refining the details, systems like LUXORliving help ensure your smart home is as intuitive and adaptable as the rest of your build. Visit **www.luxorliving.co.uk** to learn more about the LUXORliving smart home solution.

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Is rainwater harvesting worth it?

Repurposing rainfall can save you money and reduce pressure on the mains supply – but is it the right choice for your self build project? Nigel Griffiths sets out what you need to know

The water that falls on our roofs can be collected, stored and used for a variety of purposes. The main use of harvested rainwater is to flush WCs. It's also fine for use in washing machines, outside taps, cleaning the car, pressure washing and watering the garden. Repurposing rainfall reduces your reliance on the mains supply, easing pressure on the system and lowering water bills if your property is metered. Plus, rainwater is naturally soft, eliminating the need for water softeners in hard water areas.

Collecting & distributing rainwater

Roofs are the preferred harvesting point for two key reasons: they already have a collection system (guttering) in place, and they have fewer contaminants than the ground. While leaves and moss can be removed with basic filtration, more sophisticated and sometimes self-cleaning systems are also available for filtering.

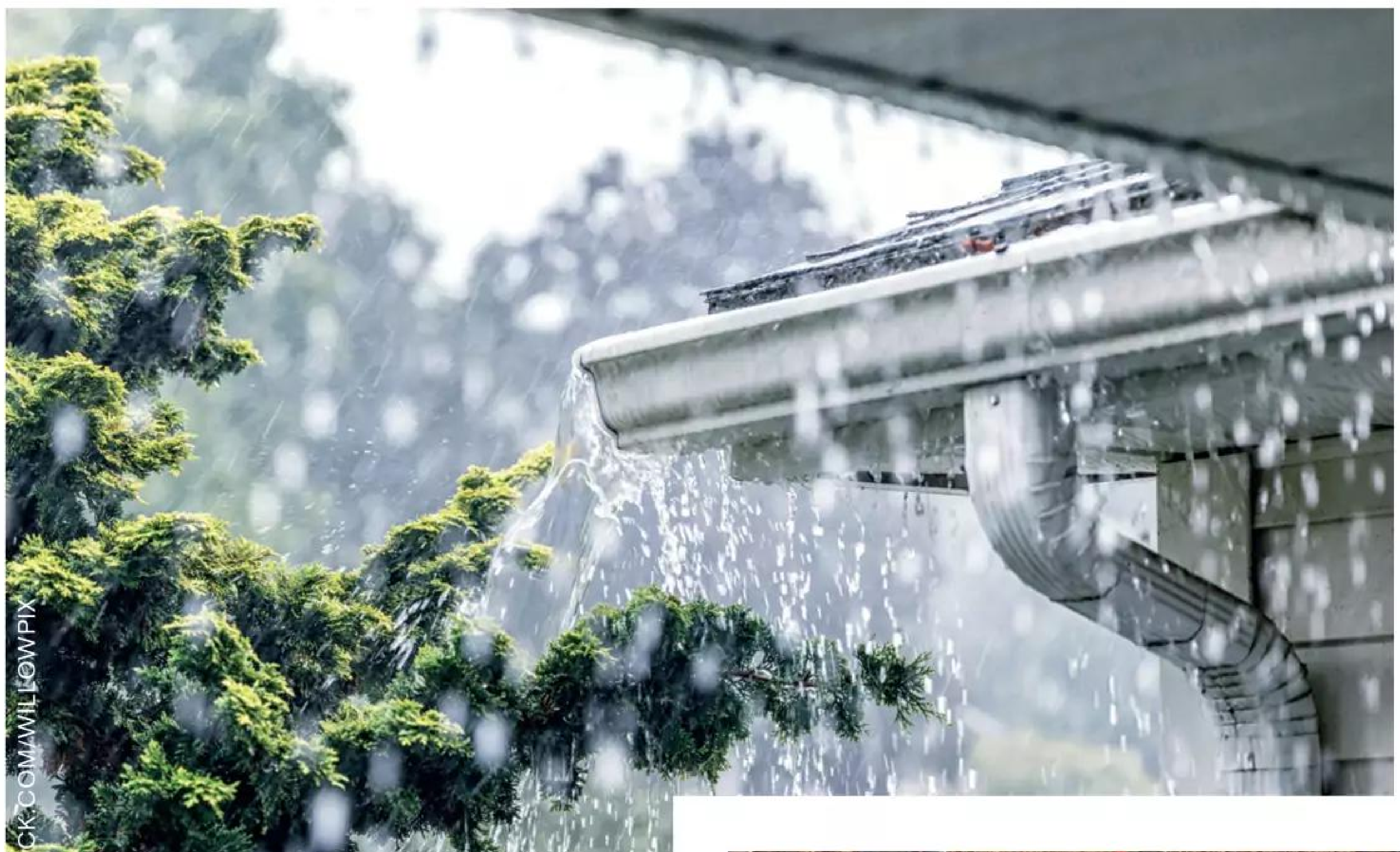
Harvested rainwater needs to have its own set of distribution pipes. There are legal standards for how rainwater conduits should be clearly identifiable, so there's no danger of harvested water being connected to a potable use, such as a handbasin, at a later date.

Storing harvested rainwater

Most rainwater harvesting (RWH) tanks are installed below ground, making it easy to channel water to them, hiding away a bulky product and insulating against the risk of freezing. The water is pumped from the tank, either straight to the points of use inside the property (a direct pressure system) or to a secondary tank in the loft.

Every RWH install needs a mains backup to meet demand when there's no rainwater left in the tank. Direct pressure systems generally use a float switch, which senses when the level is low and opens the mains water feed to top it up (while leaving space for future rainfall).

The larger the tank, the less frequently the mains backup will be needed, although the effect decreases with size. A 1,500 to 2,000-litre tank typically covers most WC and washing machine needs in an average home (1,000L = 1m^3 of water). Online calculators are available to help you to estimate the right tank size for your property, but it's best to speak with your provider's expert team to ensure you get optimal results.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How much water can you harvest?

This depends on the available roof area for collection and expected rainfall. Where you live determines how much rain can be collected and what you pay for water. So, it can make a huge difference to savings.

For example, according to the Met Office, in the West Midlands you can expect 669mm (0.669m) of rainfall per year. This is below the UK average, and water rates are also lower in this area than much of the country – which may limit savings.

Nevertheless, say you live in a 140m^2 four-bed in the West Midlands. With 70m^2 of available roof plan for collection, you'd have a maximum yield of 70 x 0.669 = 49.63m^3 of water. Your harvesting system will probably collect around 80% of the total – in this case, around 37.5m^3. That's a useful contribution to the average 164m^3 of water a typical four-bed household uses each year.

Should you invest in a system?

Rainwater harvesting can make a meaningful contribution to reducing water demand in your home and save you money on your bills – but you need to assess install costs (typically around £2,000-£3,000), and your lifestyle.

If you live alone and have a small garden (or none at all), then a RWH system is unlikely to be the right choice. Conversely, if you have a relatively large house with multiple occupants, and/or significant demand for exterior water, then it starts to become very attractive.

Installing a RWH system in a new home should be easier and more affordable than retrofitting one. You'll have excavation equipment on site for the storage tank, the house shell will be open to run the pipework, plus you won't tneed to remove and reinstate landscaping.

CONTACTS **Graf UK** 01295 559500 www.grafuk.co.uk **Rainwater Harvesting** 01733 405111 www.rainwaterharvesting.co.uk **Rainharvesting Systems** 01452 772000 www.rainharvesting.co.uk **Stormsaver** 01636 815254 www.stormsaver.com **UK Water Reuse Association** ukrma.org

Top: Why waste a free resource? Installing a RWH system will capture rainfall and repurpose it for a range of uses throughout your home, such as flushing the toilet

Above: A Graf 4,800L Carat S tank being installed as part of a wider eco project. The system includes an in-house pump and automatic supply backup. It took two days to install the tank, and a further two for the pipework

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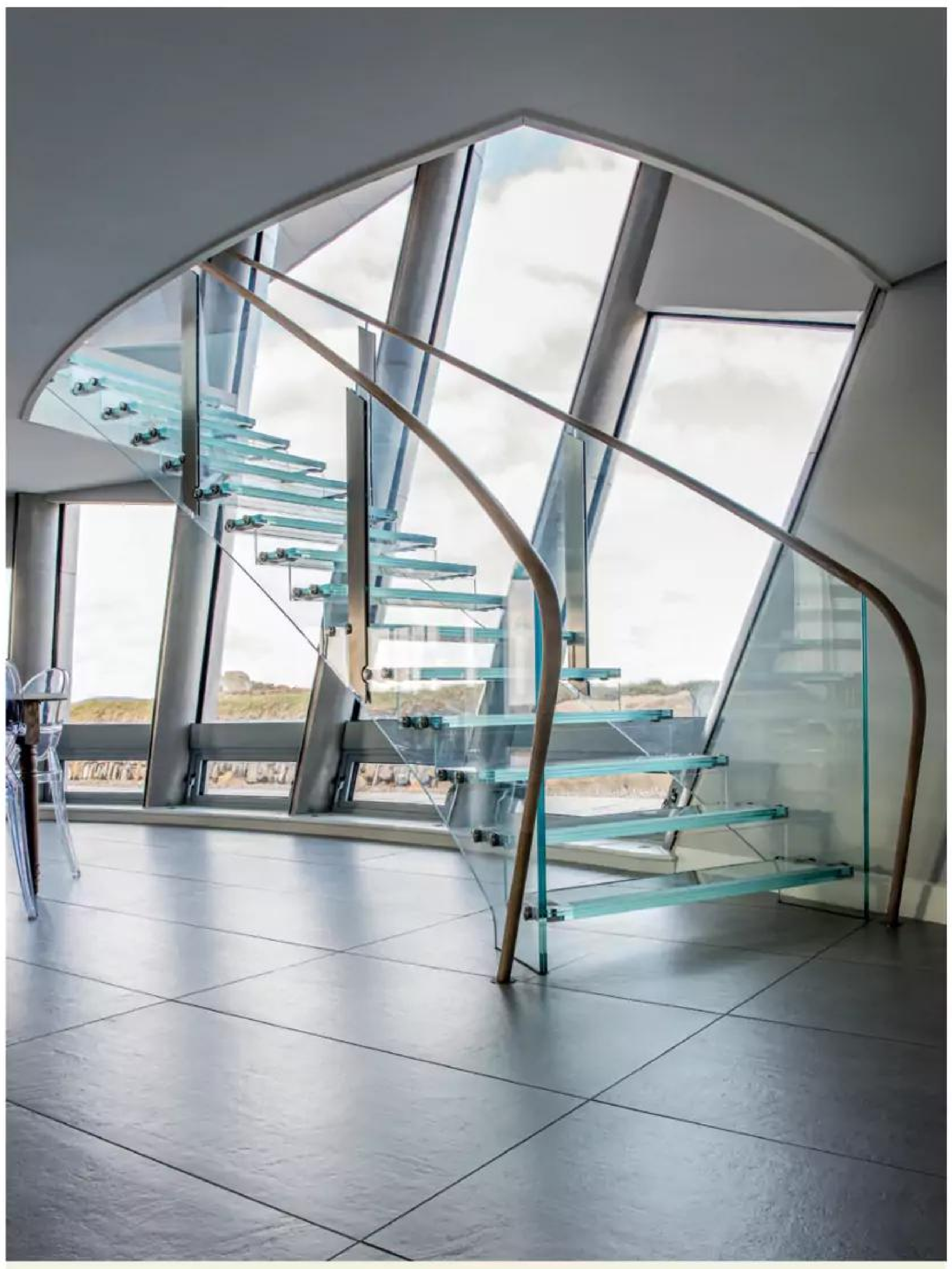
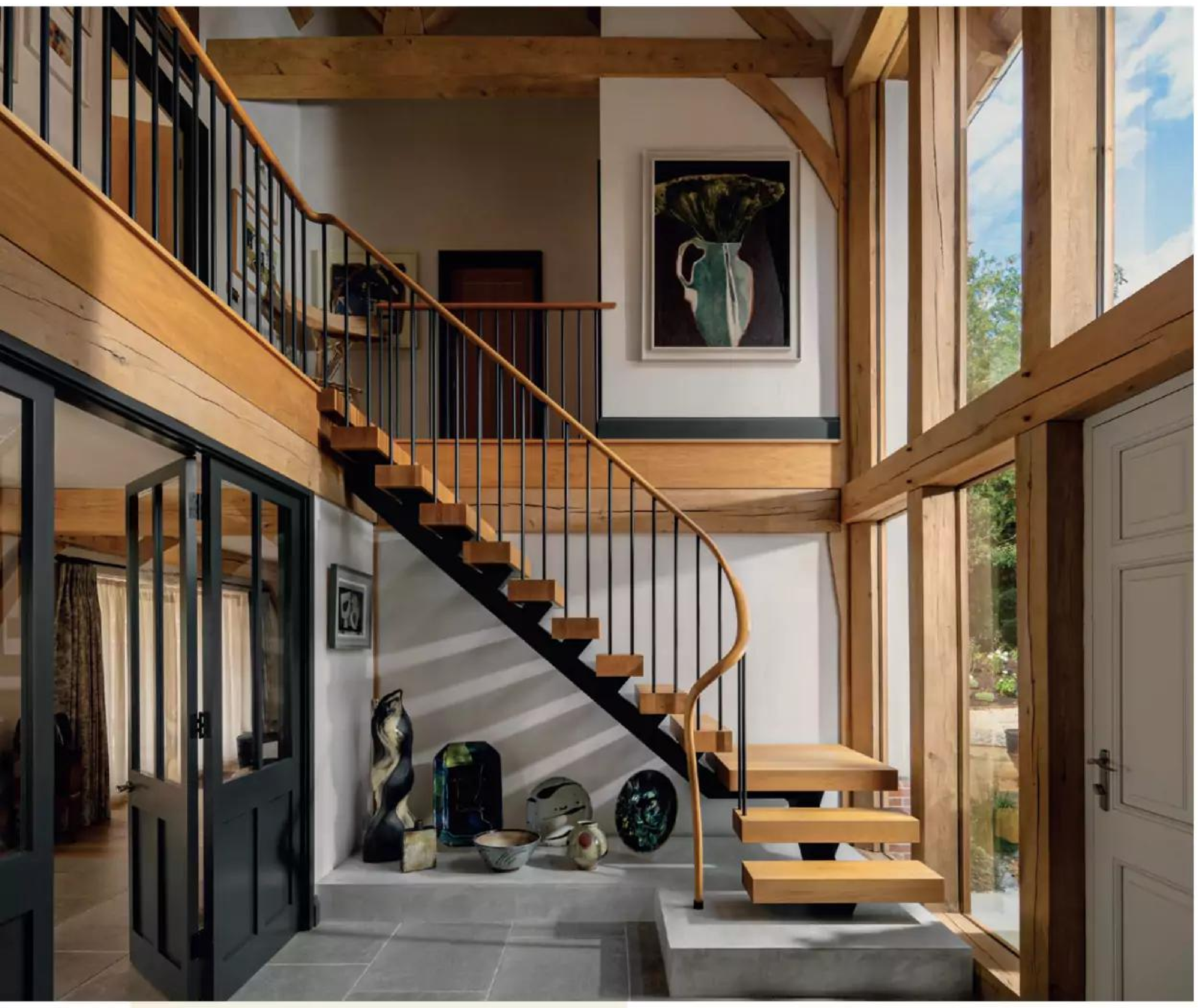
Staircase design ideas

From ultra-modern, fully-glazed structures and sleek timber flights to charming oak designs, explore eight shining examples to inspire your own self build scheme

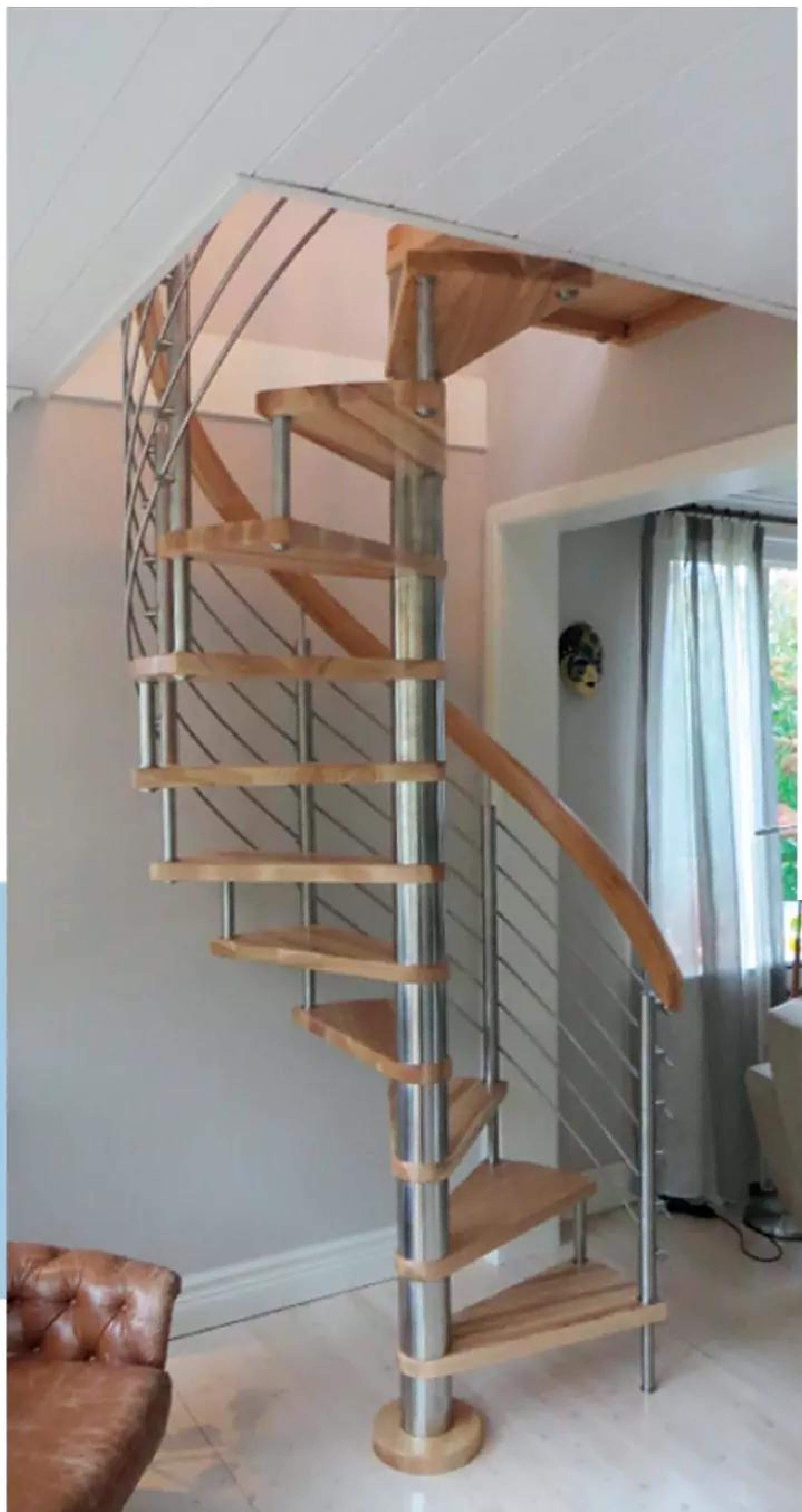
Investing in a staircase that meets your practical requirements and ties in with your home's architecture can completely transform a space and how you move around it on a day-to-day basis. This feature tends to take centre stage in a floorplan, and in many cases, it's the first thing you see when you walk through the front door. Not only does your flight serve a functional role in connecting two storeys, but with careful planning and consideration, it can become an eye-catching focal point that helps consolidate your property's overall design. Factor in the space you have available and the shape of the structure; this will dictate how it connects to the landing, plus whether you can use the space underneath for storage. Curved, spiral, cantilever and bifurcated (where the steps split off into two) styles can add drama to a space, working particularly well in high-ceilinged entrance halls for a feeling of luxury.



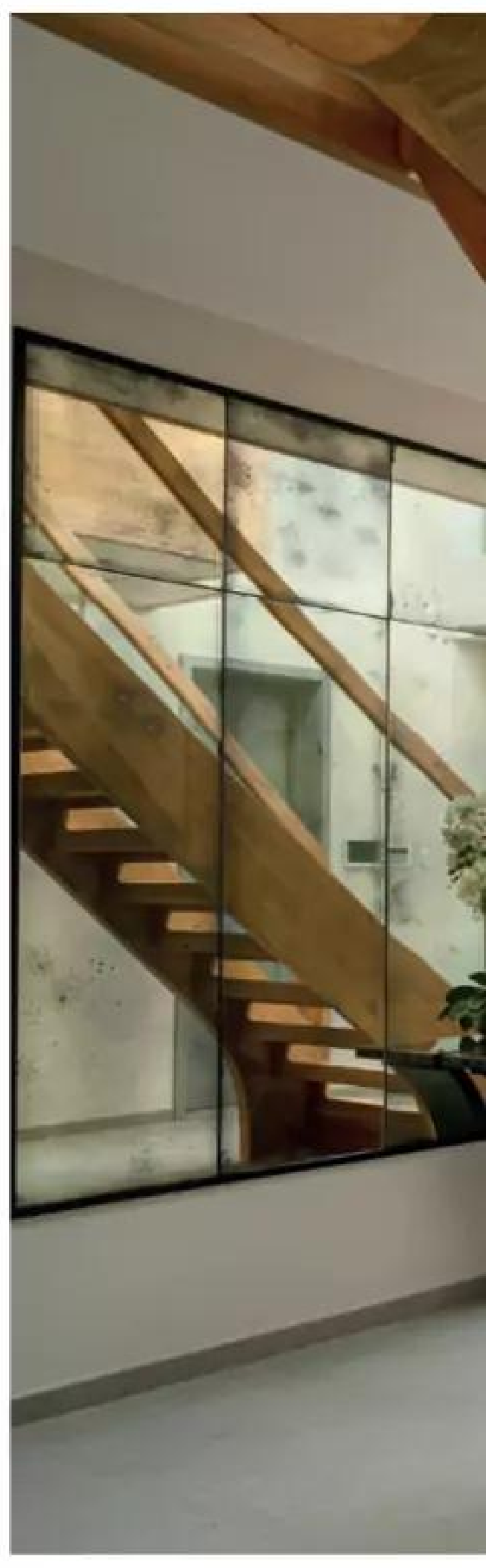
▲ Featuring triple-laminated, low-iron glass treads supported by a curved structural glazed balustrade, this stunning design from Bisca is a sleek, contemporary solution that allows light to flow uninterrupted through the space. Made from 80% glass, only the handrail and minimal fixings are visible, allowing the steps to disappear into the view behind. **(www.bisca.co.uk)**



▲ Winner of the 2024 Build It Award for Best Staircase, this sculptural flight by First Step Designs makes a striking statement in this home's hallway. The structure is meticulously detailed, with solid metal spindles and 112mm sleek, European white oak treads, sourced from FSC-certified suppliers in Italy. **(www.firststepdesigns.com)**



▶ Taking up minimal floor space in this cosy living area, this spiral staircase design by Zakuna has a metal spine with timber treads. It features an industrial-style balustrade constructed from horizontal stainless steel bars and a wooden handrail. The bespoke flight can be customised with a choice of woods, such as oak, ash, walnut or mahogany. **(www.zakuna.co.uk)**



◀ This cut-string staircase from David Smith St Ives features wow-factor oak treads and continuous, sweeping volute handrails. Blending the innate charm and character of wood with modern design, solid steel spindles complete the look. **(www.davidsmith.co.uk)**

EXPERT Q&A

RICHARD MCLANE

founder and design director at Bisca, answers your questions about specifying a staircase for your self build project

Q At what stage of a project should you engage a staircase manufacturer?

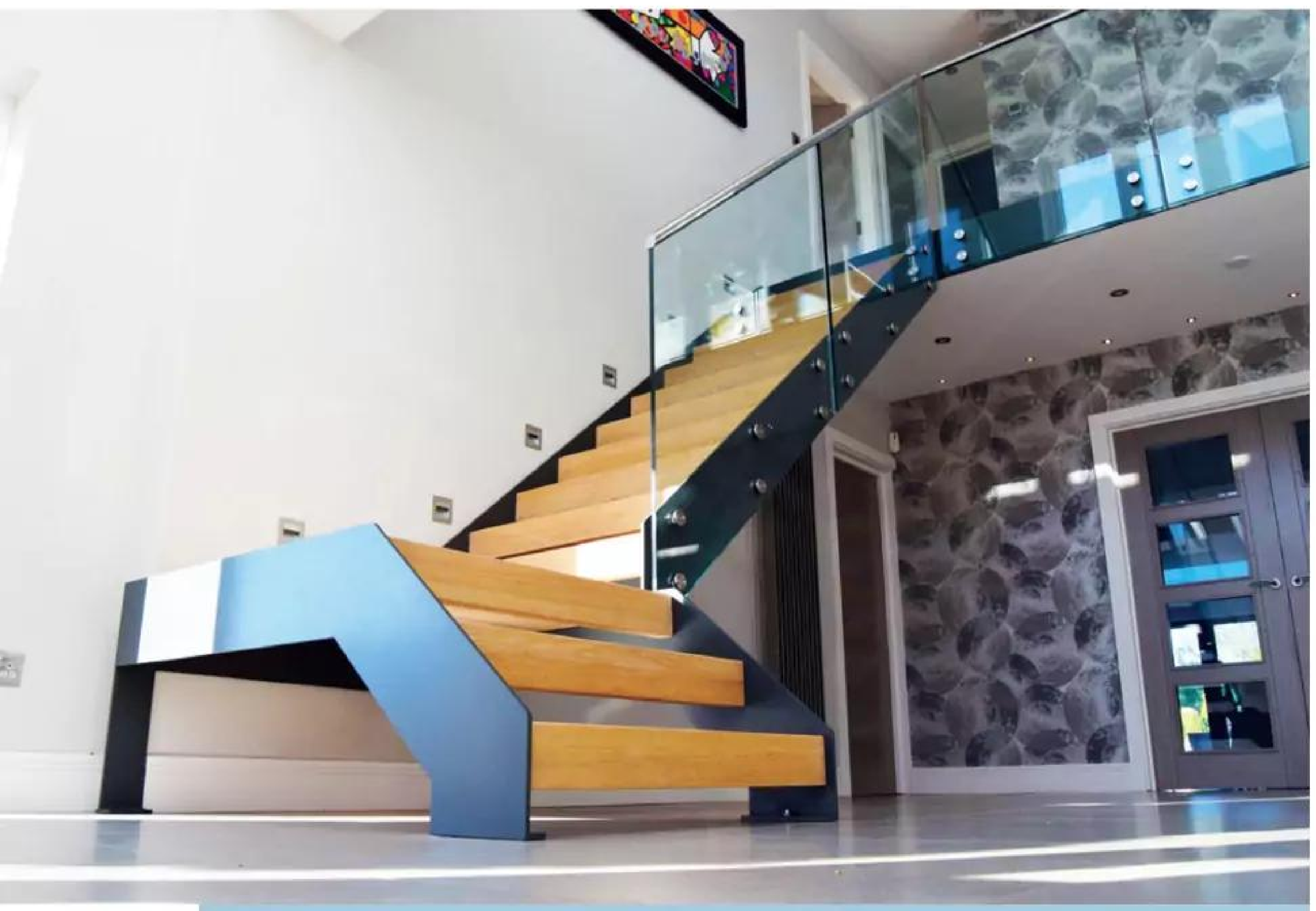
Engage a staircase specialist as early as possible. For a self build project, it is wise to involve an expert from the initial planning stages, before anything physical or structural is agreed. It's quite common, however, for the details to be considered later in the process and for a client to make contact once the architectural drawings have been confirmed. In this instance, a bespoke staircase designer, such as Bisca, will have the experience to work with existing configurations and maximise the space's potential.

Q What should you factor in when deciding on the size, location and placement of your staircase?

Consider the home's scale, ceiling height and access to natural light. It's key to ensure the staircase fits proportionately within the overall space and is not too overpowering or too underwhelming; but more so it offers a balance between its prominence and other attractive features in the building. The rise of each tread, traffic patterns and any spatial constraints will influence layout. Some spaces are more compact and therefore impose limitations on where a flight can be placed. In these circumstances, a creative mindset is needed.

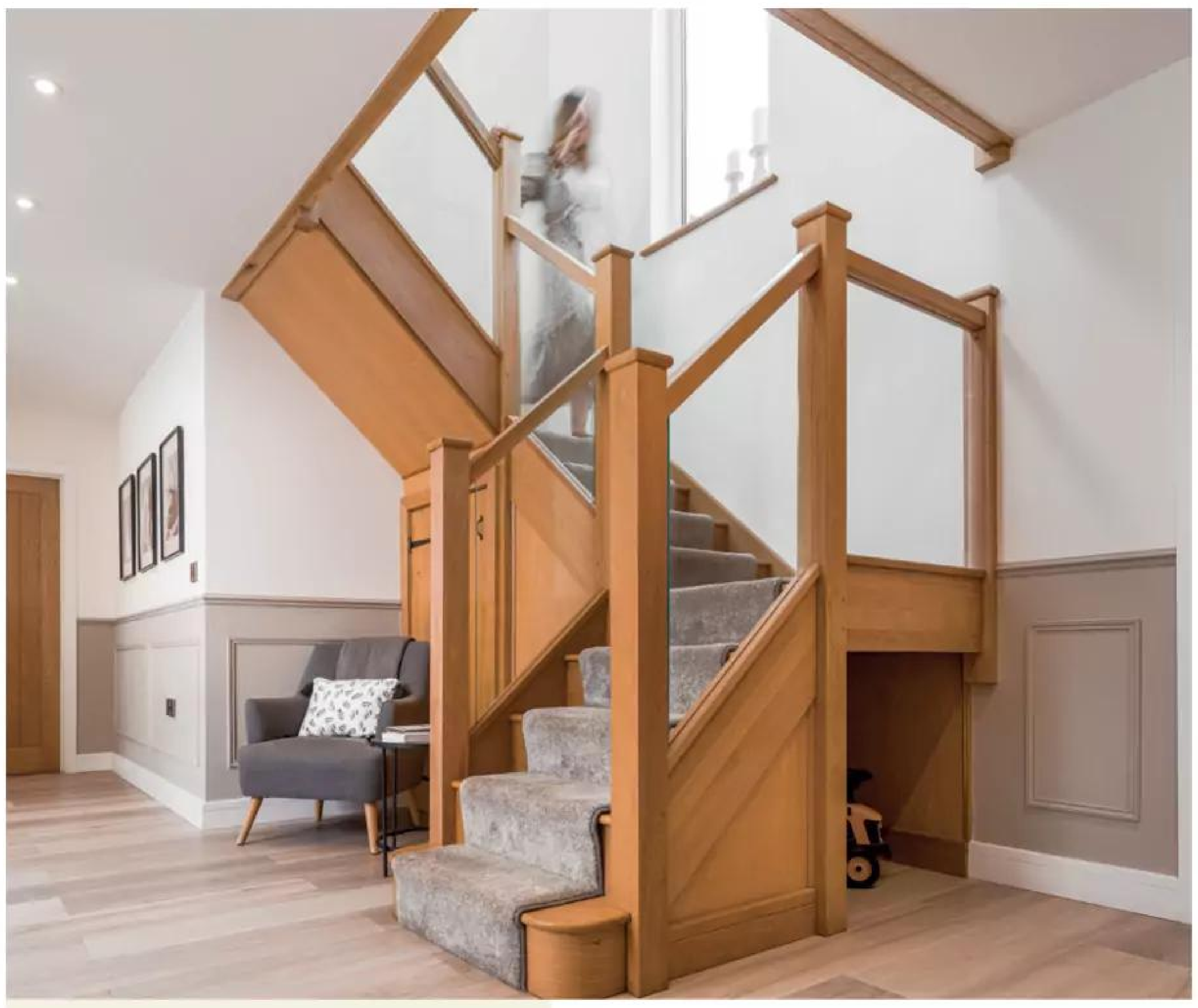
Q What should you consider in terms of staircase safety and Building Regs?

There are various practical regulations that must legally be followed throughout the initial design, manufacture and installation stages of the project. Key factors include balustrade height, spacing and tread finish. The finish of the tread is critical to its safety – tiles are all-the-rage, however, they are not so practical underfoot and can be slippy. Many hard surfaces can be treated to create a degree of friction, so selecting wood, glass or stone with a grain or textured effect can minimise potential trip hazards. It's important to avoid 'pocket catchers' in your design, too, as the angles at which you access or travel up and down a staircase can vary significantly.



▲ The model 500 by Complete Stair Systems is made completely bespoke with steel stringers, 50mm solid timber treads and a choice of complementary balustrade options. This design includes a stylish mix of charming, gold-toned wood steps, plus statement black steel fixings and a glass balustrade. **(www.completestairsystems.co.uk)**

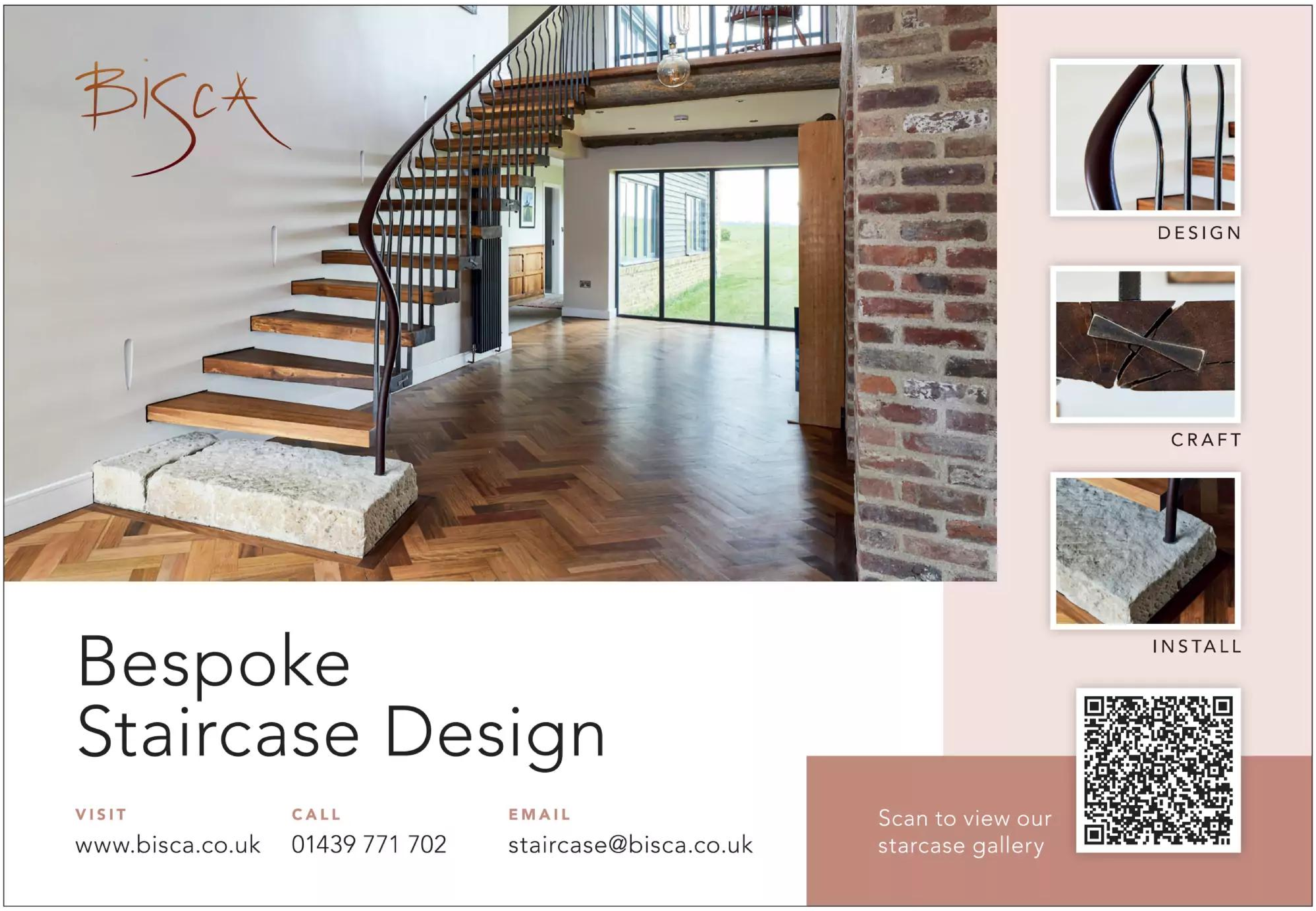
▲ Crafted using European oak for a sturdy, self-supporting design, this scheme by Max Stairs features wow-factor oval-shaped risers to ensure light can flow throughout the home's entrance. Toughened, laminated glass panels and curved newel posts work together to make a modern statement. **(www.max-stairs.co.uk)**



▲ Designed and installed by Stairbox, this U-shaped oak staircase features two quarter landings and a plush grey carpet runner for a cosy feel. The flight features an embedded glass balustrade with timber posts. **(www.stairbox.com)**

ANDREW MEREDITH

▶ Designed by Gundry + Ducker, this unique cantilevered staircase is made from a mix of terrazzo, using both in-situ and precast formats. The flight connects each floor in the impressive triple height entrance. **(www.gundryducker.com)**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MIRIAM SHERIDEN

FLOORING OPTIONS

From aesthetics to practicalities, there's a lot to think about when choosing a flooring solution for your new home. Find out more about the pros, cons and costs of the most popular options

TIMBER

Few materials can match the warmth and timeless appeal of wood flooring, whether you're in the market for a rustic, knotty look or a striking, geometric chevron design. A wide variety of timber species and hues are available, from the deep, chocolatey tones of walnut to the honey-coloured shades of oak. There's plenty of choice when it comes to timber flooring finishes, too, from natural oiled to UV oiled or lacquered. Though solid timber solutions are available, engineered products are typically the go-to option for self builders as they offer better dimensional stability when paired with underfloor heating (UFH) thanks to their robust, multi-layered construction. That being said, it's worth bearing in mind that wood is a natural insulator, so you may need to run your UFH at a higher temperature than you would with a stone, concrete or porcelain-tiled floor to ensure optimal performance throughout the day.

Wooden flooring works beautifully in kitchens, living areas, hallways and bedrooms. Though engineered solutions are more robust than solid planks, timber may not be the most practical choice for damp, humid zones, like the bathroom – any wet patches would need to be mopped up immediately to prevent long-term damage.

COST £50 per m² to £250 per m²

STONE

Radiating natural elegance and classic appeal, traditional stone flooring is well-suited to kitchens, bathrooms and hallways. It's very hard-wearing but, depending on the type of stone you specify, may require routine sealing to protect against stains and moisture ingress – especially in busy spaces. When considering this type of flooring, factor in the level of maintenance required to retain the look and feel you want. Marble, limestone and slate tiles are among the most popular options. Stone works wonderfully alongside UFH, too, as it conducts heat evenly without any cold spots.

COST £18 per m² to £100+ per m²

Above: Build It reader Tania Gibson worked with kit house supplier, Heb Homes (www.hebhomes.com), to create her dream house in Buckinghamshire. The low-energy, four-bedroom property was built using SIPs and features a light-filled, open-plan interior with stone floors from Hard Rock Flooring (www.hardrockflooring.co.uk) for a clean, cohesive look throughout

JIM STEPHENSON

Above: This self build by PAD Studio (www.padstudio.co.uk) features polished concrete floors stretching throughout the whole of the open-plan area downstairs. The smooth surface works beautifully with the exposed plaster and timber -clad walls

Right: Build It readers Susan and John Shearer knocked down their old holiday cottage and replaced it with an ultra-energy-efficient build packed with architectural wow factor. They laid Russwood's (www.russwood.co.uk) oak flooring throughout, with an Osmo oil coating for a satin finish

LAMINATE

Laminate flooring is a cost-effective and versatile solution that can mimic the appearance of wood, stone or tiles. It's a popular material for spaces like living areas, bedrooms and hallways thanks to its low-maintenance nature and its ability to help dampen noise and prevent draughts. Typically constructed with a high-density fibreboard core and finished with a protective, moisture-resistant layer, laminate is easy to install and doesn't require waxing, polishing, or sealing. While it may not be as long-lasting as some other solution, it's a practical choice – just be sure to check the laminate's thickness and AC wear rating to ensure it's well suited to your particular space or room's function.

COST £20 per m² to £60 per m²

PORCELAIN

This flooring option is available in a wide range of styles, colours and finishes – many of which seek to replicate natural materials like wood and stone. Porcelain tiles are waterproof, slip-resistant and are a fantastic partner for UFH due to their density. They're also low-maintenance – hoovering and mopping with a mild detergent will keep your flooring looking shiny and fresh.

COST £25+ per m²

VINYL

Available in colourful, patterned profiles, vinyl is made from a synthetic, petroleum-based material. This option is water-resistant, making it ideal for bathrooms and kitchens. You can purchase it in tiles (known as LVTs) or sheet form. Luxury vinyl tiles (LVT) tend to be more hardwearing than vinyl that comes in sheet form, which isn't as well-suited to busy areas of the home that'll receive heavy footfall. If fitted and looked after properly, you can expect vinyl flooring to last up to 20 years. If you're looking to pair it with UFH, always check your manufacturer's guidance to ensure compatibility.

COST £10 per m² to £40 per m²

CONCRETE

Polished concrete flooring is a high-end option and the perfect choice if you're keen to establish an ultra-modern, industrial aesthetic. On the plus side, it's incredibly hardwearing and water resistant, making it an ideal solution for kitchen-diners and bathrooms. It works beautifully in open-plan areas, too, thanks to its ability to create a clean transition between the different zones. Due to its high thermal mass, concrete floors make a great partner for UFH, storing heat steadily. To achieve a high-quality and lasting finish, any concrete floor should be poured and polished by a skilled professional.

COST £130 per m² to £160 per m²

CARPET

The plush, velvety feel of carpet means it's a great finish for bedroom floors, though hardwearing products are strong contenders for living rooms, dining areas and even hallways because they can stand plenty of wear and tear. A high-quality product can last for up to 20 years. Plus, this solution serves as an excellent heat and sound insulator that pairs wonderfully with UFH – providing you choose the correct underlay and tog specification (below 2.5). Wool is a traditional choice, but natural materials like sisal, coir and jute will enhance your home's eco credentials and can create a rustic look. Nylon and polypropylene are low-maintenance options.

COST £10 per m² to £40 per m²

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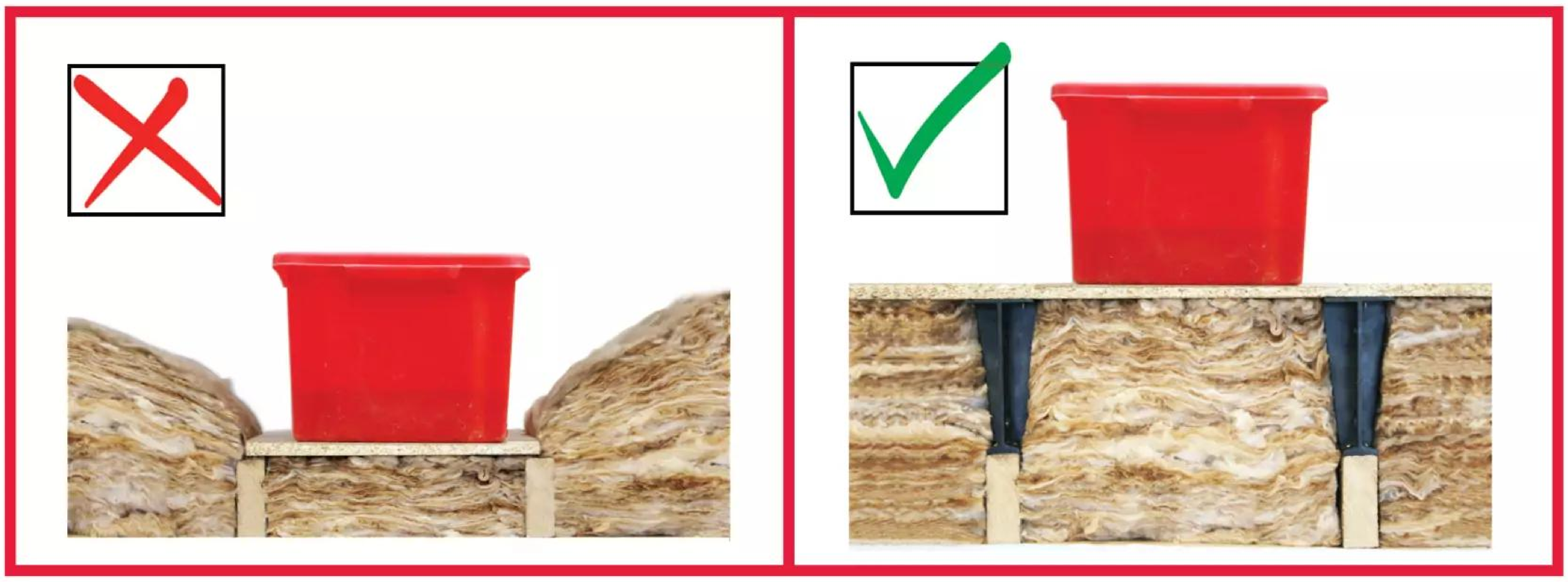

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Plastering & wall finishes

TARAN WILKHU

Above: This project features Clayworks' Clay Plaster. Chosen for its non-toxic qualities and raw, rustic texture, the clay blend allowed the owners to create their dream eco home without compromising on aesthetics, fitting their brief for a natural-feeling interior. The organic finish can regulate temperatures and moisture content throughout the year (www.clay-works.com)

How are internal walls formed and how should you decorate them for a lasting, healthy interior space?

Your home's walls play a vital role in creating a comfortable and personalised space, so it is important to consider all the options when deciding how they look. Pay close attention to your home's overall construction and wall foundations when putting together your scheme, as this may influence how you're able to decorate. For example, stud walls tend to be better suited to lightweight finishes, such as paint, while block construction lends itself well to heavier internal finishes and designs like bricks or tiles.

With such a wide variety of interior wall finishes on offer – from natural clay to sleek high-gloss – how can you decide what's best for your space? Here, we break down the choices and important considerations to keep in mind before starting your bespoke building project.

How are interior walls constructed?

Internal walls are typically constructed during the first fix stage, which is when you'll first see how your living spaces are divided – so this is the last chance to make any changes to the design without incurring additional costs. Most internal walls are fabricated using timber studwork, which is cost-effective, space-saving and quick to put together, plus offers an easy place to run services.

If needed, interior stud walls can be reinforced to carry some structural load. However, in some cases it may be necessary to switch to standard blockwork masonry to achieve the required strength in a reasonably slim profile. It's down to your project's structural engineer to determine which, if any, internal walls are to be load-bearing – and the specific requirements should be clearly indicated on the design drawings. As a rough guide, the presence of architectural features such as open-plan layouts, high ceilings and cantilevered staircases might all indicate the need for interior blockwork walls.

Do you need a base layer?

Exposed block or brick walls can be left unfinished for an industrial or rustic look. However, most internal walls are usually covered with plaster. Gypsum-cement plaster is a popular choice due to its affordability, ease of use and relatively quick drying time, allowing for faster decorating. Wet plaster may involve a thick build-up in multiple coats, and can even be left exposed or dry-tinted at the mixing stage to create a soft through-colour.

Alternatively, plasterboard or other contemporary wall coverings, such as timber panels or tiles, can be applied directly to masonry using adhesives (a method called dot and dab). In timber frame self builds, these panels are fixed using screws or nails. For stud walls, adding acoustic insulation behind plasterboard can help reduce sound transmission between rooms. Plasterboard usually only needs a skim coat before it's ready for your chosen finish.

What finish should you choose?

Selecting the right option can be challenging, especially with so many different products available. Natural finishes like clay or lime-based plasters are increasingly popular for their breathable and eco-friendly properties. Both of these options can be tinted, pigmented with your choice of colour, and even sculpted. Clay surfaces absorb toxins and will regulate dust, too, so makes for a healthy, low-maintenance finish that'll be well worth the investment.

Traditional trade paints are still a popular option for many, offering durability at a reasonable cost. Many products now include environmentally friendly features, too, and you can mix custom colours to try at home to find the perfect fit for your space. Paints are either matt or glossy (dictated by their resin content) – test out the options to see what complements your project and works best on the surface.

As mentioned, timber panels, exposed brick or tiles are also popular and can make a real statement when designed into a scheme from the start. With these, you don't have the hassle of repainting and maintenance is fairly simple. While you may consider doing this DIY, just as with any wall finish, bear in mind the work will be fully visible in situ – so professional installation may be worth it.

WHAT ARE VOCS?

Volatile organic compounds (VOCs) are behind the strong odour of some oil and solvent-based paints. The growing market in eco paints and finishes has arisen partly due to concerns about the high levels of VOCs (including formaldehyde) found in many finishes. They are volatile because they can evaporate rapidly in normal conditions. VOCs can lead to asthma and other diseases, but their level indoors is dependent on the quality of ventilation systems as much as on the source. VOCs also tend to have high Global Warming Potential (GWP) and can contribute to petrochemical smog. Including car and industrial coatings, paints contribute around 10% of the solvents present in the environment, so always check the label to ensure you're making the right choice.

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HOW TO PLAN YOUR KITCHEN

From getting your design ideas down on paper to finding a designer to bring it all to life, preparing and planning your culinary space in advance is the key to achieving your dream scheme

ORIGINAL WORDS LINDSAY BLAIR

The secret to the perfect kitchen is planning the space early. Considering the size, layout, style and key features of your ideal culinary zone from the outset of a self build project will ensure you get the end result you want – or as close to it as possible. As with any project, there will be times of compromise. But by laying out your ideas ahead of time and factoring in installation requirements while your bespoke house's architectural plans are still being developed, you're more likely to achieve your vision and stick to your budget.

Preparing your brief

The best place to start is with a comprehensive wishlist. What style do you like and what layout will work best for you and the property's orientation? Do you want an island, utility room, dining table or bank of built-in appliances? Want to make the most of an indoor-outdoor link? Your lifestyle matters, too. Think about your day-to-day life and how a good kitchen design can enhance it – for example, with storage, seating or a work from home nook. If you're a keen home cook or love to entertain, you may prioritise top-spec appliances, while for others, great storage and a utility room may be high on the list.

It helps to consider what specifically doesn't work with your existing or previous kitchen. Make note of any major annoyances you have and add these points to your list. While gathering design ideas and inspiration online is useful, remember your space is unique to you.

Above: Blending scalloped walnut doors, clean blue Shaker-style cabinets and wow-factor marble surfaces, this scheme by Naked Kitchens (www.nakedkitchens.com) is both functional and stylish. Prices start at £20,000 for a similar design

Above: This house features a Classic English Kitchen by deVOL (www.devolkitchens.co.uk), painted in their Trinity Blue shade. Prices start at £25,000 for a similar design

Finding the right company

You should look to bring a kitchen designer on board during the architectural planning stage of your project. While this may seem early to some, assembling a team of experts in the initial phases of a self build will ensure good collaboration and a cohesive approach to the design.

An architect can plan a kitchen space as part of their drawings, but a kitchen specialist will suggest ways the layout can enhance the property's features, or come up with ideas to change door and window placement to better suit appliances and cabinetry configurations.

Ask friends, family, trades and neighbours who have done a project for recommendations and search local

The eco-friendly Puustelli Miinus range, available from Sustique (www.sustique.com), is made with biocomposite frames that are waterproof, emit zero VOCs, recyclable and use 50% less material than standard cabinets. The frames have a lifespan of over 75 years, too. Shown here is the Oak J-Pull kitchen, with oak cabinets, porcelain surfaces, and A+ rated appliances. This specific kitchen design would cost £11,801 + VAT

forums and key industry websites, such as the Kitchen Bathroom Bedroom Specialists Association (KBSA, www.kbsa.org.uk) and The British Institute of KBB Installation (BIKBBI, www.bikbbi.org.uk). Aim to visit large national and independent showrooms in your area and look out for artisan furniture businesses who could bring something different or special to the table. Try to get at least three quotes and sets of concept drawings from different suppliers to compare and take note of customer service and initial rapport when meeting a designer.

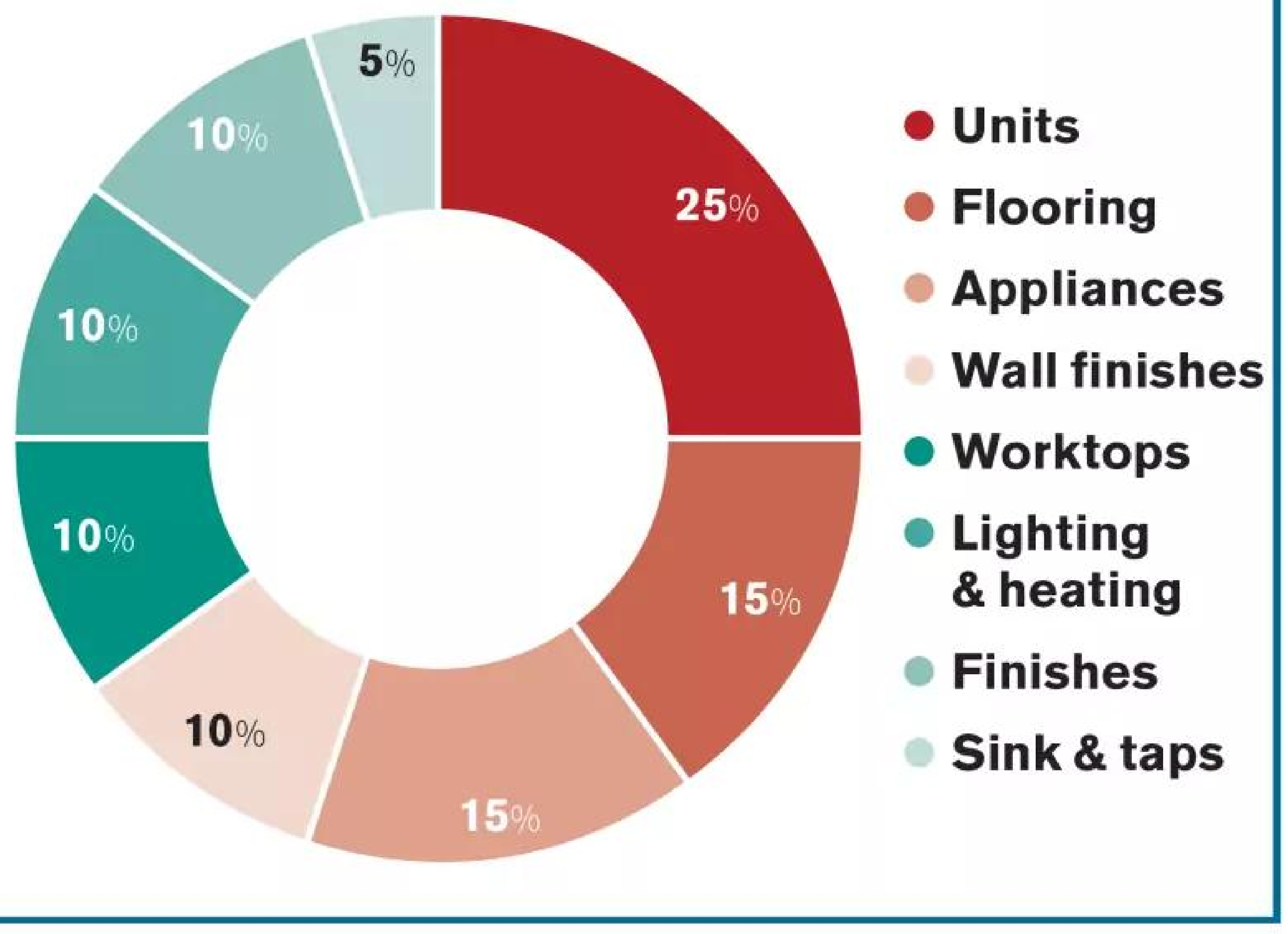
What to discuss with your designer

You should ask a designer about the process, timelines, material, appliance options and what they know about current trends, all to set a level of expectation. Enquire about previous projects and speak to the clients about their experience. Query any designer who doesn't seem forthcoming – most will be thrilled to show off their work, so if they're not, it could be a red flag. Try and find out what they specifically would do with the space at hand, potentially before you've even given them an indication of your design brief or what you do and don't like.

Don't be put off by a kitchen designer who asks lots of questions – this is a good sign. This could be asking how you use your culinary space on a daily basis; whether you entertain frequently, and if so, how many guests you typically host; what items you store in your kitchen and how accessible you need them to be.

HOW MUCH DOES A KITCHEN COST?

A small kitchen at the budget end of the scale might cost as little as **£6,000-£7,000** installed. Meanwhile, a bespoke design is likely to run to at least **£25,000** – and if you are going for a super luxury scheme, you could easily spend three times that amount (or more). If building a kitchen extension, this will bring its own costs (**£2,500-£3,000** per m^2 of new floorspace is a reasonable ballpark figure for a typical single-storey extension). Here's a rough guide to where you might allocate your spend on the key elements of your new kitchen:



What does the design process involve?

The kitchen company will visit your property to take detailed space measurements, or just work from your architect's plans. After this stage, detailed drawings, scaled plans and 3D renders will be presented and you'll have the opportunity to make various changes until you're happy with the design. It's crucial to amend plans at this stage, rather than later, to avoid extra expenses and delays. You'll be able to talk to the designer about costs and work through the different aspects to value engineer the kitchen scheme.

A kitchen designer will typically liaise with your builder to ensure they can measure the final site and discuss timescales before you receive final documentation including technical drawings to assist contractors. The supplier will then arrange a final sign-off meeting and you'll be able to check over the plans for approval. Next the kitchen will be manufactured and brought to your self build's site for installation.

Choosing the right layout

Food preparation, cooking, serving and washing up are the four main functions your kitchen needs to fulfil. Make sure you provide adequate worktop space and cupboard or drawer storage in each functional zone, as well as incorporating the right appliances – it's best to place the dishwasher underneath or next to the sink, for example, and have storage for pans close to the hob.

You need to be able to move quickly in the main kitchen workspace – the area between the cooker, fridge and sink. This is often referred to as the working triangle and will form the basis of your layout. The total walking distance between these points should be between 5-7m. Any less can feel cramped, and any more is a waste of space. Here are four popular layouts:

GALLEY KITCHEN This kitchen style originates from the culinary zones found on ships. The layout is long and slim, and consists of two opposing walls with a fairly narrow space in between. Generally, galleys provide ample room to include multiple cabinets and units, and the compact nature of the layout means there's an easy workflow for prep and cooking. However, ill-designed galley kitchens can be overused as a walkway if too open.

KITCHEN ISLANDS This is the layout of choice for those who like to entertain guests while cooking. The island can introduce extra counter space, but there are many variations on how it can be used. Some feature built-in hobs, sinks, breakfast bars and storage, while others may house a dishwasher or wine fridge.

U-SHAPED KITCHENS These kitchens consist of work space on three adjoining walls. The configuration provides ample storage and counter space, and can accommodate an island unit if you have enough width. A U-shaped layout provides maximum space and plenty of storage options – ensuring everything is within easy reach. If the room is large, it's important to make sure that the points of the working triangle are still close together.

L-SHAPED KITCHENS This layout consists of work space on two adjacent walls. The configuration makes excellent use of available room, and works best when the kitchen adjoins another zone. So, if yours connects to a living area or you want a kitchen/diner, an L-shaped area might be the perfect solution. However, as the largest area of counter space is situated in the middle of the L, you may have to squeeze all of your smaller appliances together – but you can accommodate an island to increase storage if you have space in the room.

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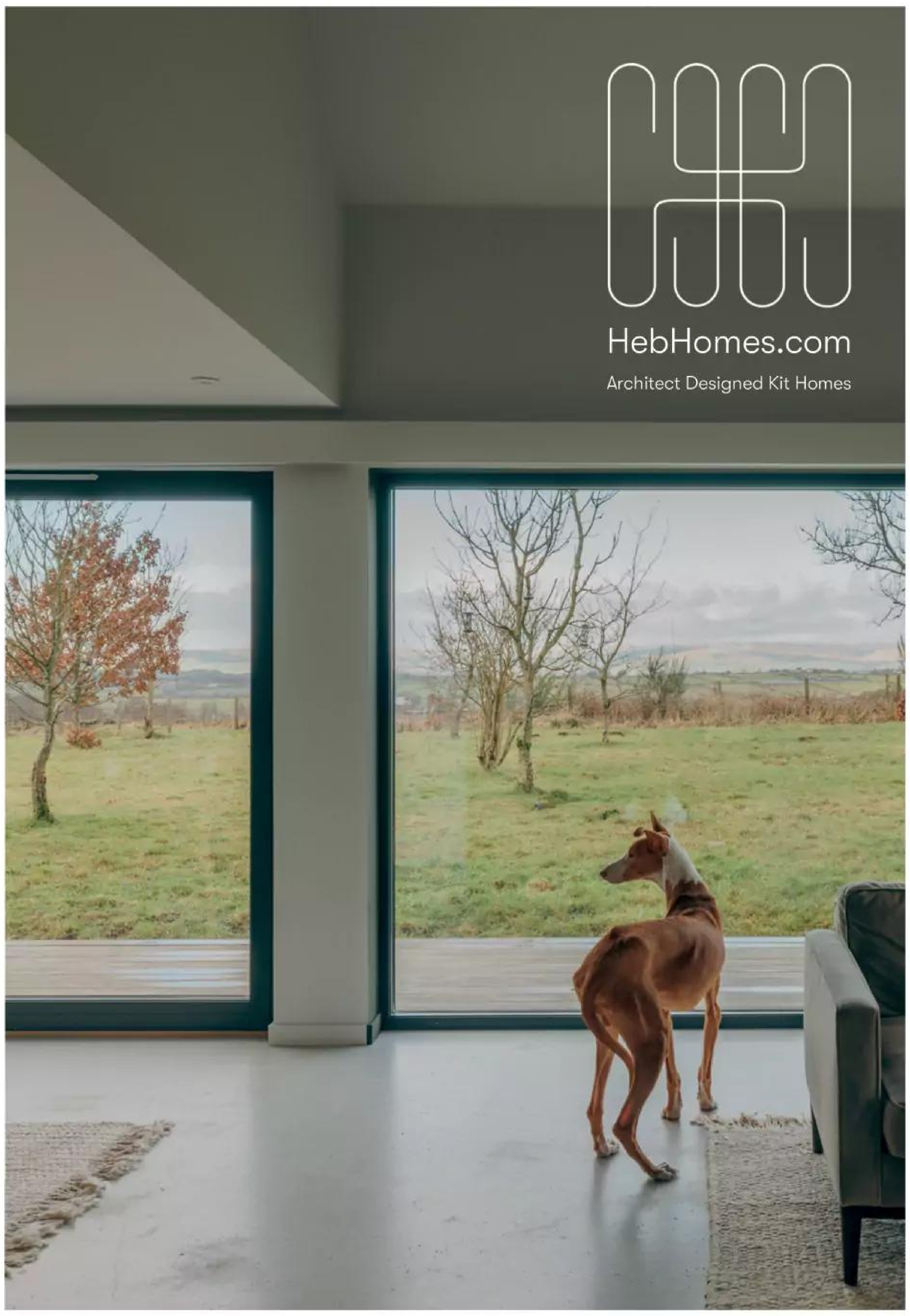

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Proctor Air® one year on

May 2025 marks one year since A. Proctor Group's Proctor Air® was awarded BBA certification. Developed based on feedback from designers and installers, this air permeable, low-resistance (APLR) pitched roof underlay simplifies pitched roof construction and allows moisture vapour to escape the roof space, reducing condensation risk. It also achieves a W1 resistance to water penetration classification and a minimum 1m hydrostatic head.

In its first year, Proctor Air has been widely adopted across the UK pitched roof sector. Key projects include a 2,500m² roof upgrade at Hatchmeadow apartments in Northumberland, where it helped to protect residents during works, as the building remained occupied throughout. It was also selected for the £325m Manchester Town Hall restoration, addressing the complex ventilation needs of its historic roof.

A standout 2024 marketing campaign branded it "the air to the throne," earning two wins at the Construction Marketing Awards.

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BUYER'S GUIDE

Bathroom fit-out

From layouts to heating and ventilation, here's how to plan your bathroom effectively

Above: This bathroom features storage units from Moduu Living (www.moduuliving.co.uk), specified in a bright yellow shade with a marble top. The double sink stand has soft-close doors, precision-aligned seams, and clean, hidden fixings for a sleek, modern design

An effective, well-thought-out bathroom design will require a few key considerations – from deciding on a functional layout to installing proper ventilation that'll ensure a healthy space. But where to start? From flooring to heating, here, we take a look at each of the components that need to be factored in for a practical and lasting bathroom scheme.

Layouts

Striking the right balance between practicality and looks can be a challenge, especially given the varied array of functions a bathroom has to perform. You should start by considering the order you'll use the different elements (ie sink, bath, WC and storage units) and then you can decide on a logical layout. The basin, for example, is often placed closest to the door, as it tends to be the last stop in most routines. Buying the key components as part of a set offers a cost-effective route, particularly if you're seeking a cohesive design. Suites typically include a toilet, basin and bath/shower – the idea being that you buy them together and benefit from a discounted package rate.

Early communication with an experienced bathroom designer, architect, or contractor will be key to working out whether your aspirations are practical and feasible. They'll be able to provide valuable insight on the layout of services, spatial requirements, costs and more.

There are many online services that allow you to experiment and create virtual bathroom layouts. Just remember you'll need to incorporate ventilation, plumbing and electrics, plus circulation space around showers and baths. If you're working with a limited floorplan, there are plenty of design tricks to create the illusion of more space, such as wall-hung sanitaryware and toilets.

Creating a comfortable space

Ventilation Adequate bathroom ventilation is essential, as the humid environment and prolonged contact with moisture may otherwise cause damp to take hold.

Many will look to incorporate MVHR systems into their houses, which work by extracting moist air from wet zones such as kitchens and bathrooms, recycling the heat and distributing a fresh supply to other rooms in the house.

Heating While radiators are the traditional choice, many self builders opt for UFH as it ensures water can evaporate quickly from the floor, making it safer and less slippery. If you do choose to have radiators, select a model that can deliver the required heat output for the room. Heated towel rails can be used to form an attractive design feature and can be plumbed into your house's central heating or powered via a mains socket.

Walls & Floors

Practicality is the main consideration when it comes to specifying floor and wall coverings that work with your bathroom design. It's essential to select a surface that won't become slippery and dangerous when wet.

Ceramic & porcelain tiles Durable and water-resistant, these units range from **£15-£50 per m²** for materials, with installation costs of **£25-£50 per m²**. Timber-effect porcelain designs are popular for those seeking a wood finish without the upkeep.

Vinyl This material is available in a wide range of patterns and finishes, meaning you'll be able to find a style suited to your space. Affordable and easy to maintain, too, vinyl flooring costs **£10-£30 per m²**, with labour averaging **£10-40 per m²**.

Natural stone flooring Luxurious but high-maintenance, stone can cost up to **£100+ per m²**, and **£100 per m²** for installation. You'll need to ensure you seal the surface regularly to avoid water damage.

Waterproof wall panels A seamless alternative to tiles, panels cost **£50-£100 per m²** and are easy to wipe down and keep clean.

Lighting

Incorporating a layered lighting scheme into your bathroom at the outset will help ensure a setup that meets your needs. A main lighting fixture positioned in the centre of the room will provide the brightness you need for everyday tasks, such as showering. Consider task lighting either side of a vanity unit, or a bathroom mirror with integrated lighting features.

All electrical installations need to comply with Building Regulations – and you'll require appropriate IP-rated products to protect against potential moisture ingress, which can lead to damage.

SHOWER OPTIONS

Electric showers are affordable and operate independently of your boiler, costing **£50-£400**. Priced between **£100** and **£500**, mixer designs deliver consistent water temperatures. Power showers boost water pressure and are priced between **£150** and **£600**. Finally, digital products offer a high-tech solution with precise temperature control, costing around **£300-£1,500**. Shower enclosures range from compact quadrant designs **(£200-£1,000)** to luxurious wet rooms **(£2,000-£5,000)**. If you need to save space and money, then a simple shower fitted over your bathtub is a great option and can look super chic with the right fittings.

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QUICK GUIDE

Lighting design

A well-planned lighting scheme can completely transform your home's look and feel. Here are the key areas you need to know

ORIGINAL WORDS OPINDER LIDDAR & JANE CRITTENDEN

BRILLIANT LIGHTING

Above: Brilliant Lighting (www.brilliantlighting.co.uk) worked with the owners of this cedar-clad self build in The New Forest to develop a sympathetic, flexible and practical lighting scheme that enhances the house's unique architecture. As day turns to night, the warm 2700K LED fittings give the cool-toned timber facade a rich, warm red appearance

Self building a brand new house presents the ideal time to implement a carefully considered, well-designed lighting plan. That's because you'll be able to ensure all your new spaces have the exact lighting you need for functionality and to enhance your home's features while working seamlessly with your glazing. Getting the design right is all about planning during the early stages – here's what to consider.

Developing a brief

When drawing up a scheme, your architect or lighting designer will be able to signpost the different spaces that will have most access to sunlight versus the darker zones. This will inform the amount and positioning of glazing – helping you to formulate a considered lighting scheme that works alongside these permanent fixtures.

You should aim to achieve a good level of brightness in living and entertaining areas by using high wattage output lighting, with most of the direct illumination coming from the ceiling. In rooms where you want to create a peaceful, environment such as in the study and bedrooms, a subtle approach is required. In these cases, it often makes sense to use indirect reflected sources, such as wall lights or well-placed task lamps. Both natural and artificial lighting can accentuate the best features of your interiors and architecture, and can even improve mood and lifestyle.

What kind of lighting do I need?

Go through your floorplan and think about how you'll use each space. It's a good idea not to be too room-specific but instead concentrate on the activity. Bear in mind that a room's usage might change at different times of the day or depending on the occasion. To get the right mix of functionality and character, you should apply three layers of lighting: ambient, task and accent.

Ambient lighting sets the overall tone for a room. It should be flexible enough to give you bright yet glare-free lighting, with the option to dim when required.

Task lighting should be bright enough for the job at hand and positioned to illuminate the working area without casting shadows or dazzling anyone. Task lighting usually comprises downlights and surface-mounted spotlights to target specific areas.

Accent lighting highlights architectural features to give structure to a lighting scheme. It will draw your eye to particular interior elements, such as architectural or structural features, like oak beams and staircases.

Room-by-room lighting

Living rooms A task light in the form of an angled floor lamp is a good idea, offering a comfortable light for reading, while wall lights either side of a sofa, for instance, can create a gentle glow perfect for relaxing. Balance with a dimmable ceiling pendant and layers of soft, ambient light from table lamps.

Open-plan kitchens You should use lighting carefully to demarcate zones, such as the cooking and dining areas. A row of pendants above an island can be designed to work as task lighting and be dimmed for ambience if you're entertaining, while pendants above a dining table define the eating area.

Bedrooms These zones need to be a sanctuary you can retreat to. Avid readers will benefit from low-level lighting from bedside tables or wall lamps; or go for a pair of low-hanging pendants. A ceiling pendant makes a great focal point over a bed.

Bathrooms Balance bright task lights around a mirror with ambient illumination to create a luxurious look, or recess LEDs into the floor or wall for a wash of light. Nearly all bathroom light fittings have to be IP-rated, with specific codes relating to which products can be used in different zones in the bathroom, according to how far away they are from a water source. It is useful to have a ceiling light fixture for convenience, which doesn't need to be IP-rated unless it's above a shower or bath.

Stairwells & Landings Small, wall-mounted LEDs alongside each staircase tread will provide low level lighting at night. Statement pendant lamps work well on stairwells with high ceilings, drawing the eye upwards and accentuating the height.

SMART LIGHTING BENEFITS

Smart lighting systems go beyond basic on and off switches, providing a simplified, practical and efficient infrastructure for homeowners.

Flexibility Managing your lighting is straightforward, even when no one is home, and it can be automated with simple schedules from morning to night.

Efficiency Dimmable lights, motion sensors and programmable controls work together to optimise energy usage.

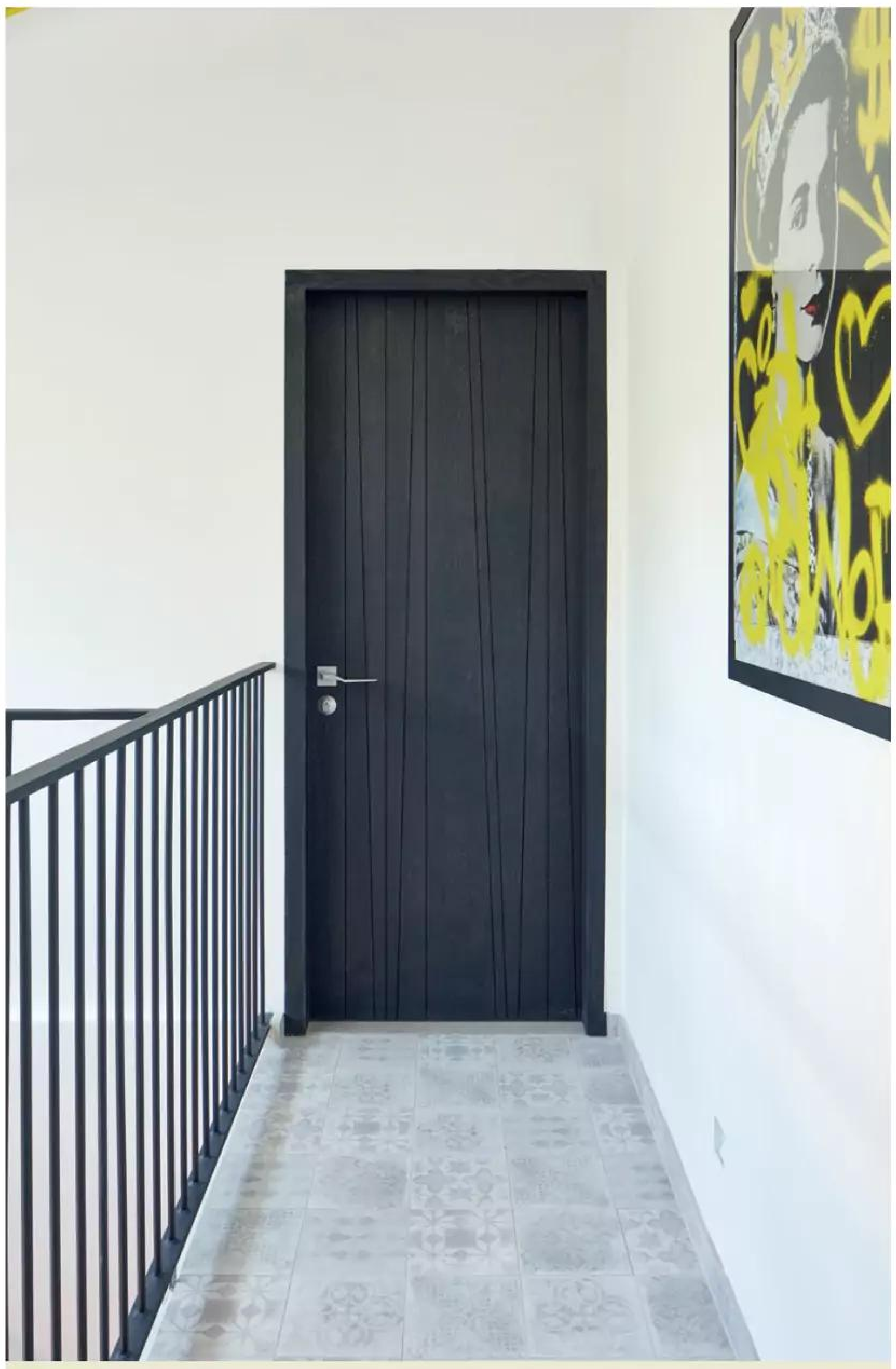
Intelligence Detectors can turn lights on when someone enters a room, inform the heating and ventilation systems, and trigger solar shading fixtures depending on sunlight levels throughout the day.

Customisation Create unique lighting scenes to match different activities or moods. With one touch you can switch from a warm, dimmed scheme to a brighter, more dynamic atmosphere perfect for activities.

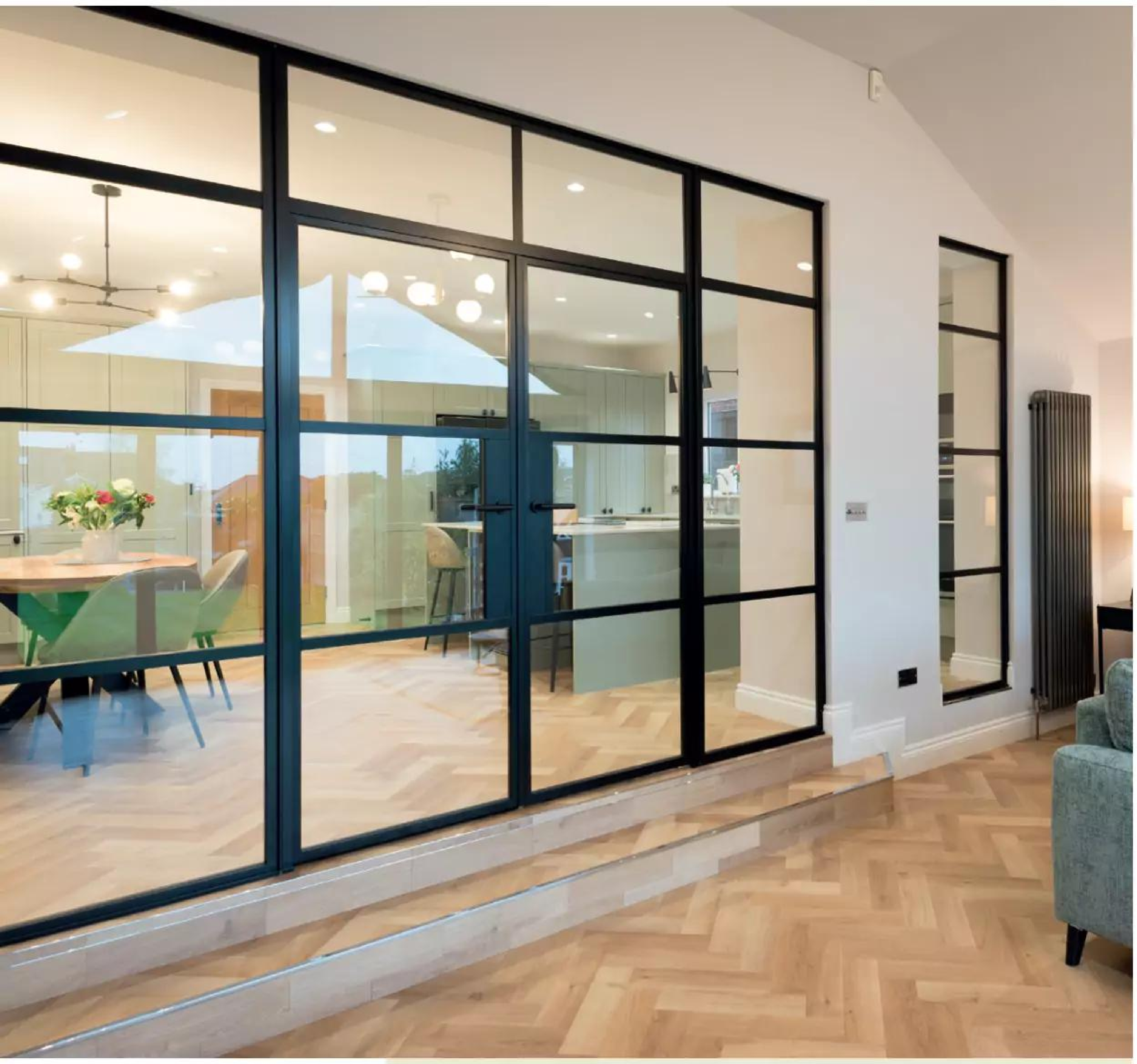
INTERNAL DOOR DESIGN IDEAS

Check out these functional, stylish and versatile solutions that'll be sure to elevate the look and feel of your home's interiors

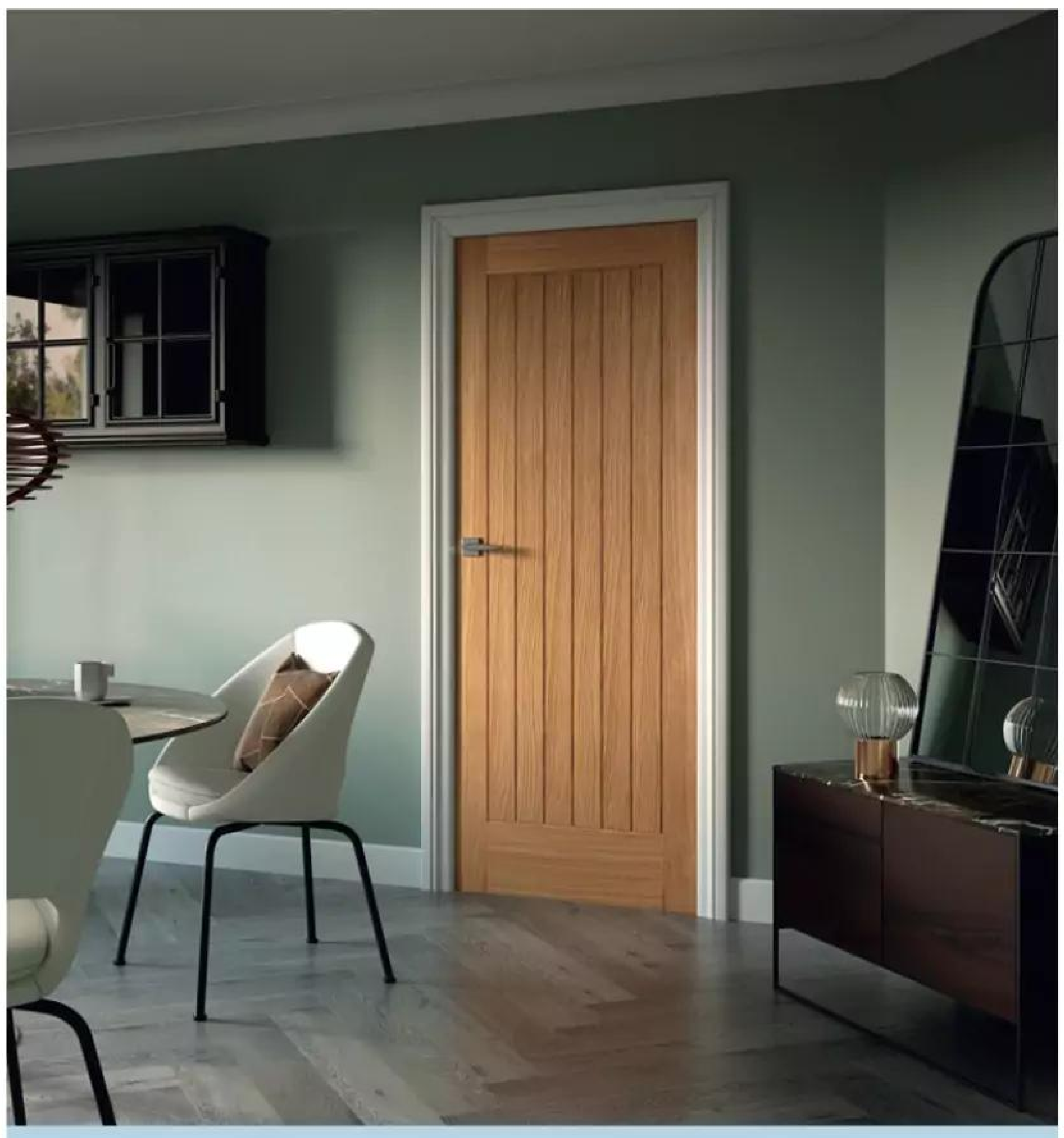
Self builders are becoming less focused on open-plan spaces, and more conscious of the many benefits of being able to partition zones off for peace, quiet and concentration. That could be for a home office, relaxing snug, or to separate a busy kitchen-diner from a family living area while retaining the flexibility to open the floorplan up when party time comes around. The right doors will team style with functionality and respond to your project's particular performance requirements. Do you need fire-rated models in certain areas, for instance? Think about acoustics, too: the basic hollow-core doors you'll find in the DIY sheds will barely block out any sound, whereas quality units featuring solid-core construction (and/or well-specified glazing) will keep noise transfer to a minimum. Take inspiration these different solutions.



MODERN STATEMENT
The Milano V internal door from Urban Front, shown here in oak with an ebony oil finish, is available in sizes up to 1,500mm x 3,000mm – perfect for a whole host of openings. This design features a zigzag of grooves for a contemporary edge. **(www.urbanfront.com)**



BIG REVEAL
Fully-glazed room dividers offer great flexibility for your living spaces, while also providing an eye-catching focal point. This house's living, cooking and dining areas have been partitioned with the Origin OI-30 Internal Door – a sleek heritage-style system made from premium grade aluminium. **(www.origin-global.com)**



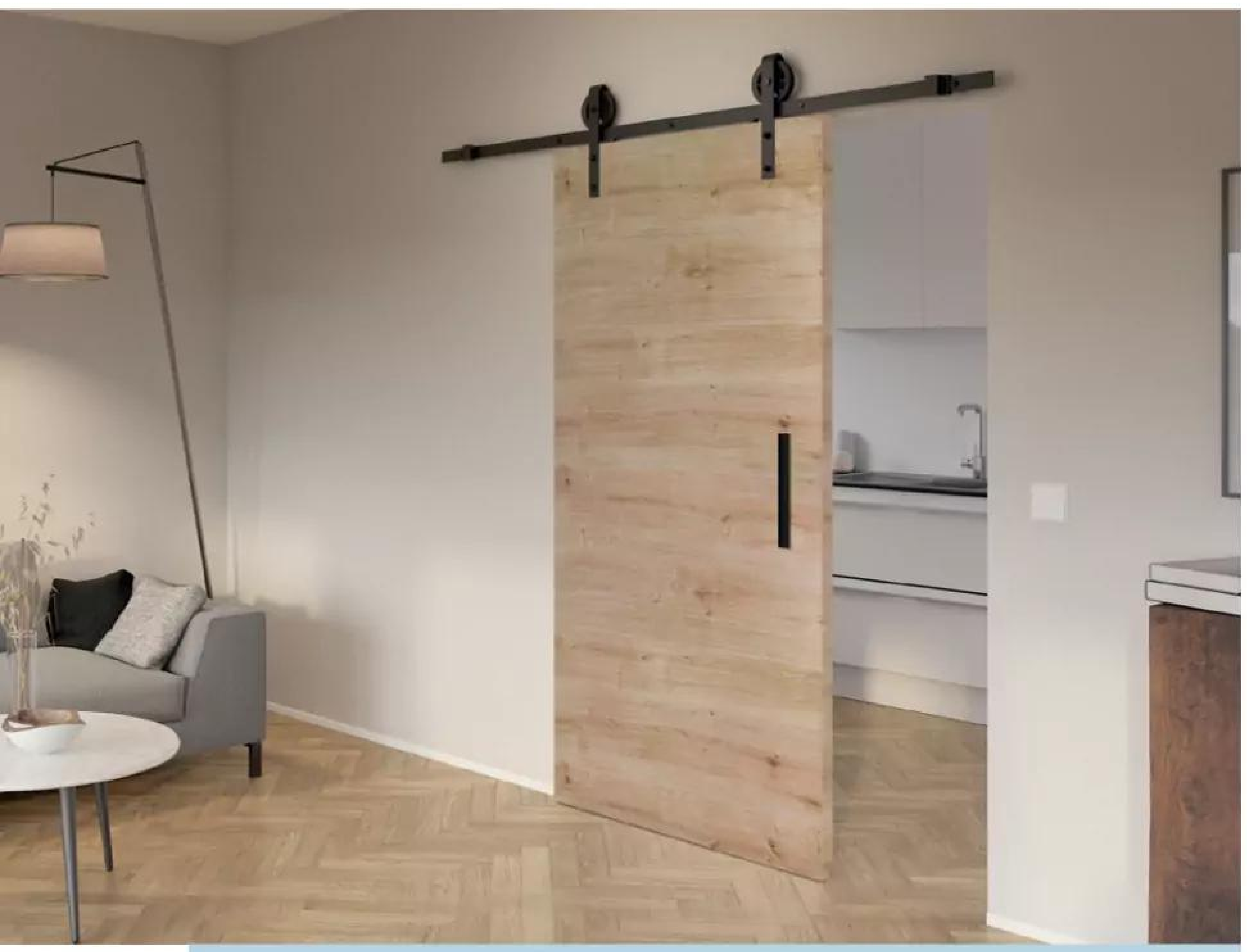
BEST TRADITIONS
The Suffolk Essential Cottage Oak Unfinished Internal Door by XL Joinery, available from Door Superstore, is sturdy, characterful and timeless. Available in a wide range of sizes, it features vertical V-groove panels and a solid core for a durable, robust finish that'll complement a whole host of interior schemes. **(www.doorsuperstore.co.uk)**

DREAM BIG

A six-screen, centre-opening SF22 glass partition from IDSystems adds panache and versatility to this project – enabling the living zone to be closed off from the kitchen /breakfast area. The doors can slide open to create a fantastic, light-filled and open hub that's great when entertaining. **(www.idsystems.co.uk)**

LIGHT TOUCH

The Civic Black Glazed from JB Kind is an industrial-style door with a black painted finish. Constructed with solid frames, holding individual panes of glass, and sturdy lock blocks, this door is a fantastic, verstile option for those looking to create wow factor while maximising natural light. **(www.jbkind.com)**



LET IT SLIDE

Hormann's Corvara sliding internal door features a textured Duradecor wild oak finish, with a charming horizontal grain and flat black handle. This design is great for those looking to turn their internal entrances into a standout focal feature, as the black roller tracks are left exposed. **(www.hormann.co.uk)**

TUCKED AWAY

Pocket sliding doors are the ideal solution for those looking to save precious space inside, reducing the impact of the swing space taken up by conventional hinged openings. The Eclisse single pocket door kit can be hidden behind standard plasterboard fittings and decorative architraves, and works with your own choice of 35mm or 44mm thick door panel. **(www.eclisse.co.uk)**

EXPERT Q&A

ELIZABETH ASSAF

co-founder & designer at Urban Front takes a look at what to bear in mind when specifying internal doors for your new home

Q What are the common mistakes homeowners make when planning internal doors?

The biggest mistake is probably having too many of them! It's so easy to have unnecessary doors in a new home. I recommend concentrating on designing the living spaces so that the most visible entrances make a statement. All other doors should dissolve into the background.

Q What top tips do you have for adding some wow factor with internal doors?

For contemporary interiors, many of our clients want the doors to disappear into the walls – so they opt for openings with no frame or architrave. If you're going more traditional, then an oak panel design with ornate handles will work well. Consider investing in specialist finishes only for the ground floor living areas, while keeping bedroom doors simple. The same approach can be used when deciding on sizes: full-height doors that reach the ceiling are very popular nowadays but will increase the price. So, stick to standard sizes and simple designs for less important areas.

Q What other specification factors can affect costs?

The higher the performance, the more a door will cost. Details like additional sound insulation, drop-down fire door seals and specialist locking will all affect the product price and potentially the labour cost for installing them.

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GARAGES & OUTBUILDINGS

Whether you're looking to upgrade your work from home setup or create a spacious, two-storey garage, here's what you need to know about the different kinds of outbuilding **ORIGINAL WORDS** ERIKA CHAFFEY

Above: This sophisticated steel-framed garage build by Okopod has been finished with Grandis timber cladding, and features both double and single Hormann roller garage doors

Outbuildings are about more than just adding extra space; they can transform your lifestyle by providing flexible, functional areas for work, relaxation and even additional accommodation. Plus, this addition offers a great opportunity to create something unique, elevating your site and your home. Here are the different outbuilding options and what you need to bear in mind for a successful, well-designed scheme.

Practical considerations

With careful and strategic planning, you can create a high-quality, futureproof space expertly tailored to your lifestyle. "Outbuildings are important to consider at the outset of a project to get the location right," says Jonathan Rixon, director at Rixon Architects. "Consider exactly what you want to use it for, both initially and potentially down the line."

Think about the best materials and construction route for your project goals and budget; does an off-the-shelf solution suit your requirements? Or would a bespoke design offer you the best value for money? Entirely prefabricated structures provide a quick and affordable option, while a design and build package may be more appropriate for larger or more complex projects.

"Look at quotes carefully and focus on the quality of materials like oak or larch, which age beautifully and last a long time," says George Allen, regional design consultant at Oakwrights. Timber is a popular and sustainable choice for outbuildings – it's durable, versatile and insulating, plus a range of finishes can be added relatively easily.

Consider the functional details such as service connections, access to essential utilities and thermal performance needs. "In most cases you'll be required to make a building control application for your outbuilding, especially if it's going to be larger than 30m² or include sleeping accommodation," says Ben Hancock-Parr, architectural services manager at Carpenter Oak.

Obtaining the right planning permission for your project is also key. "Detached garages, sheds and outbuildings usually fall under permitted development (PD), meaning that you do not need to apply for planning permission," says Martin Gaine, Build It's planning expert. The General Permitted Development Order (GPDO) sets out various additional guidelines you must also consider, including the location, size and overall look of your garage or outbuilding.

However, not all properties have these rights and in conservation areas, you will most likely have to meet some additional requirements. "If you're in any doubt , it's always safest to draw up some plans and apply to the council for a lawful development certificate," says Martin.

Carports & garages

These spaces have evolved beyond their traditional roles and so it's important to design your garage with flexibility in mind. "Over time, these areas tend to accumulate clutter, so it's crucial to create storage zones that are easy to manage and adaptable," says Steve McCloy, director and architect at McCloy + Muchemwa Architects.

CHRIS WHARTON

Below: This five-bay garden building features an exposed frame from Carpenter Oak, with two chimneys for a barbecue and log burner. The three closed sides are finished with charming brickwork

QUICK LOOK GARAGE DOOR TYPES

SECTIONAL Comprising panels connected by hinges, these doors open vertically, sliding along tracks. They're space-efficient and offer good insulation. Sectional doors do require ceiling space and can be costly to install, however.

ROLLER These consist of narrow slats that roll up into a compact coil. They're ideal for small garages as they have minimal impact on available floorspace, and are easy to operate. Bear in mind that they may offer less insulation and can be noisy.

SIDE-HINGED Swinging open like traditional doors, the partial aperture is great for accessing a bike or garden equipment. While they're suitable for drives that slope upwards from the door, they do need ample driveway space to open.

UP-AND-OVER These pivot outwards and upwards. They're durable and affordable but require significant front clearance in the driveway. Canopy versions will provide added shelter, while a retractable style slides back along ceiling tracks.

Two-storey solutions can accommodate extra living space above the garage zone, usually within a pitched-roof, creating a versatile outbuilding. "We have designed carports that include a workshop and a room above for office use," says George. "Adding rooflights or a balcony can help maximise natural light and create an inviting space." This kind of design feature requires some additional planning; "you'll need to consider the potential for first floor accommodation at design stage, as it will likely affect construction and compliance with Building Regulations," says Jonathan.

Above right: Designed and built by Cosy Garden Rooms, and erected in just six days, this large, L-shaped outbuilding is clad in low-maintenance Monterey Taupe Hardie Board. Anthracite PVCu doors and windows complement the cladding, enhancing the modern aesthetic

SIMON KENNEDY

Right: McCloy + Muchemwa Architects renovated a dilapidated garage in Norwich to create this unique space with a small greenhouse towards the front entrance. Improvements were made to the building fabric, reusing and upgrading the existing structure where possible to minimise waste

Garden offices

This type of outbuilding is a popular solution for those looking to maintain separation between home and work life. In a garden office, functionality and comfort are key. "Ensure your space includes all the essentials you need to work effectively, so you won't have to keep going back to the house," says Steve. "Opt for cooler, brighter lighting and an upbeat colour palette to keep the space polished yet comfortable." Remember to consider insulation, too, to make sure the space is comfortable to use all year round.

Incorporating glazed doors or large windows to increase your access to natural light and create a connection to the outside is a great way to establish a bright and airy zone that aids productivity. "Consider extending the roofline to create an outdoor veranda, making the office space enjoyable in all weathers," says George. As with any design that includes big areas of glazing, careful planning is vital to maintain a comfortable internal environment. "When it comes to layout, consider the sun direction and glare on computer screens," says Jonathan. "This might affect the location and size of windows and doors."

Extra accommodation

Adding an annexe or additional habitable space can dramatically enhance your home's functionality. "Unlike an extension, a separate annexe or outbuilding provides extra room with a degree of detachment or privacy from the main home," says Ben. Creating a distinct identity for your home's additional accommodation, while maintaining a practical connection with the main dwelling is vital for success. Using the same materials as the original structure in different shades, for example, or creating a strong visual connection via glazing can help you get the balance right.

In any habitable zone, thermal performance and solid construction are vital. "Using structural insulated panels (SIPs) or airtight membranes can create a thermally efficient space," says Gareth Edmunds, director at Welsh Oak Frame. "Plus, you need to ensure proper insulation and safety measures, like using fire retardant materials or double layers of fire-lined plasterboard."

Depending on your experience, engaging a professional may be the best way to ensure your build meets all the necessary requirements and your project goals. "Expert drawings and precise planning are crucial, especially for habitable spaces," says Gareth. "Consider every aspect, from layout to thermal efficiency in your design."

Summer houses & pool rooms

If you have enough space available and the budget, this type of outbuilding can add a touch of luxury and value to your existing garden. It should complement your outdoor space, blending functionality with aesthetic appeal. "Pool rooms in particular often require larger spans, offering an opportunity to create spectacular designs," says George.

For a multi-purpose zone, it's important to prioritise practical, low-maintenance materials. "These spaces should have non-slip, easy-to-clean surfaces and be detailed with colours and materials that let the garden or pool remain the visual focus," says Steve.

CONTACTS **Carpenter Oak** 01803 732900 www.carpenteroak.com **Cosy Garden Rooms** 0115 772 2715 www.cosygardenrooms.co.uk **Hormann** www.hormann.co.uk **Just Planning** 07534 337377 www.just-planning.co.uk **McCloy + Muchemwa Architects** 07926 359590 www.mccloymuchemwa.com **Oakwrights** 01432 353353 www.oakwrights.co.uk **Okopod** 020 3011 2860 www.okopod.com **Rixon Architects** 01285 323454 www.rixonarchitects.com **Welsh Oak Frame** 01686 688000 www.welshoakframe.com

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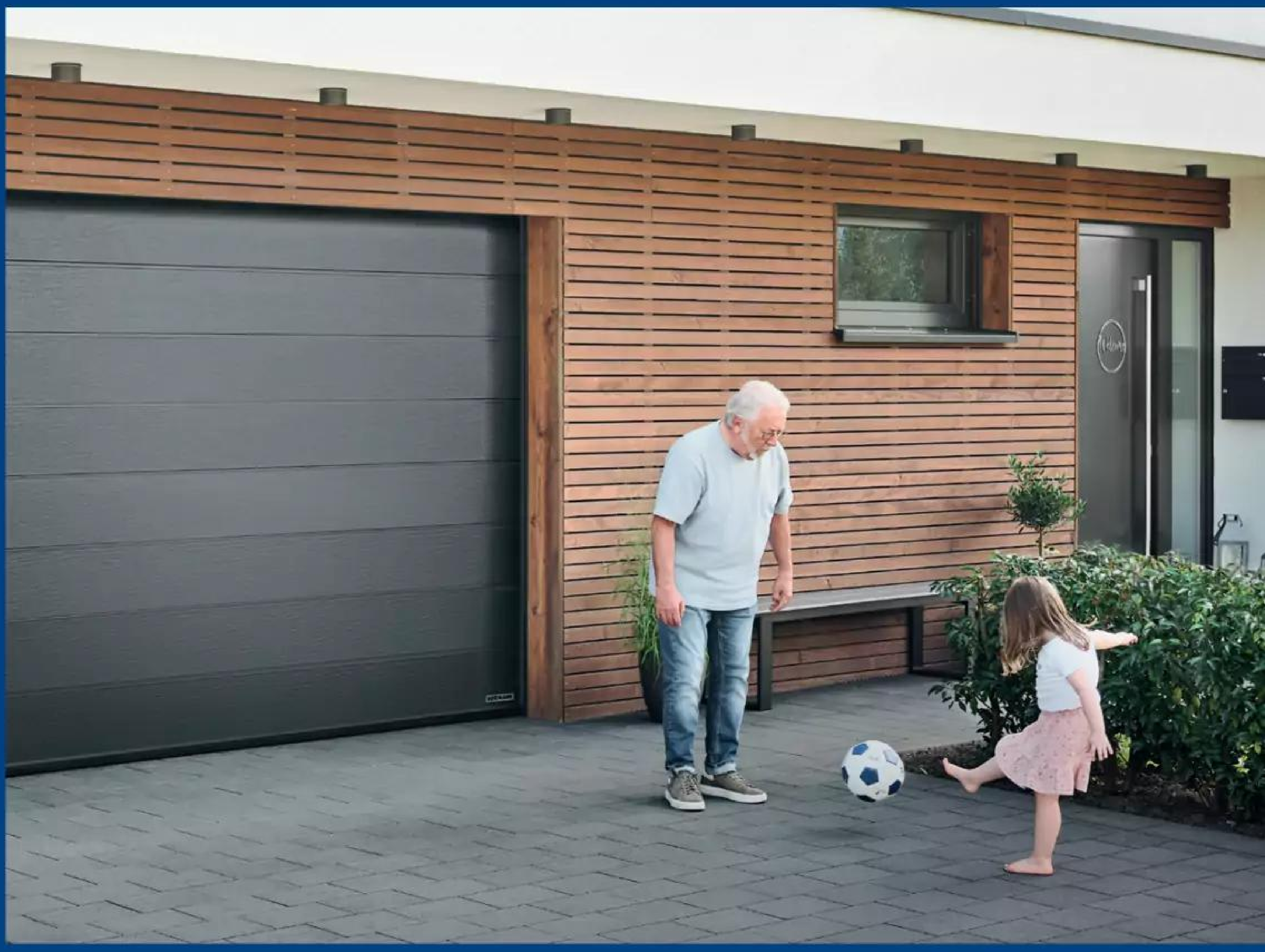

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NIKHILESH HAVAL

Left: This spectacular barn-style self build in Buckinghamshire by Welsh Oak Frame (www.welshoakframe.com) has been finished with larch cladding and features and a large gravel driveway. Gravel adds a great element of security, as it'll alert you to anyone driving into your residence with its noisy properties

LANDSCAPING WHERE TO START

Planning your outdoor scheme early is key to creating a cohesive and considered exterior that meets your needs. From driveways to planting, here's what you need to know

ORIGINAL WORDS NIGEL GRIFFITHS

Gardens provide much of the setting for a property, and enhance the beauty of the overall aesthetic. In addition, an outdoor space offers us a place to relax and take leisure, a habitat for wildlife, and somewhere we can grow vegetables, herbs and more. The benefits of gardening to mental and physical health can hardly be overstated. So, why is the garden so often left until last on self build schemes? It's frequently an afterthought, an adjunct to the main project – the dwelling. But by the time the house has been completed, the surrounding soil has often been removed, polluted or compressed. Whatever trees and shrubs may have been on the plot originally could have been removed, and the land used as a dumping ground.

Below: Piccolo Setts is a slimline concrete block paving driveway solution by Aggregate Industries (www.holcim.co.uk). It is manufactured in the UK and produces around 50% less carbon compared to traditional clay pavers. They're available in a wide range of hues to suit your unique exterior design

Planning your scheme

We all know that planning takes time, as does design and procurement. This valuable time can be put to good use by observing, learning, protecting and planting. In the two or three years it can take for a build to begin, trees could be taking root and shrubs establishing themselves. These trees, along with any existing garden features, will need physical protection during construction – but the best safeguard is a well-briefed contractor. This fallow period is also the ideal opportunity to get to know your plot of land: to see which plants appear throughout the seasons, to observe existing wildlife, and to start thinking about how to enhance habitats for the future.

To begin, it's helpful to set some priorities – do you want something low-maintenance, or a garden largely given over to food production? If your priority is supporting wildlife, your garden will look very different from one designed for family entertaining or children's activities. This decision will naturally guide you toward an initial design; this can evolve as the project progresses, and the shape of the house is finalised. However, perimeter planting is rarely affected, so you can get started early with hedges and structural trees. On larger plots, you might even be able to get stuck in creating an orchard, for example.

Soil health & composting

Soil health on self build plots is often better than in agricultural land, which has been intensively farmed, ploughed, drained of nutrients and treated with weed killers and artificial fertilisers. If you're starting your garden scheme from scratch, topsoil can be imported, but it's much better to make your own.

You should always aim to start with a compost heap. Much of the material that is cleared in the preparation of a site can be composted – even turf and larger woody material, which takes longer to break down, can provide a suitable habitat for wildlife in the meantime.

If you have to progress more quickly and space is at a premium, then the ash from a clean bonfire can happily be added to the compost heap. As you manage the site and clip the hedges, this will continue to fuel the heap in a positive cycle of sustainability. You'll need at least two, if not three heaps, at different stages of decomposition, but make this space right at the start of the landscaping project. Adding the resulting composted material to your flower and vegetable beds will result in good, healthy soil structures that retain moisture and feed your plants. Don't use peat – its extraction destroys vital habitats,

MARTIN GARDNER/LUCY WALTERS

This contemporary self build, designed by HollandGreen Architects (www.hollandgreen.co.uk) and delivered by principle contractor Barr Build (www.barrbuild.co.uk), uses shrubs and flowers to help connect the home with the surrounding countryside. Urban Front's (www.urbanfront.com) Rondo V front door in iroko was specified to ensure a secure entrance that perfectly complements the project's sensitive architecture

releases stored carbon, all while offering no essential benefits that compost can't provide itself.

Hard landscaping

Sometimes there is an existing building to be demolished – this can yield bricks or stone to be used in paving or retaining walls, and concrete can be crushed for hardcore beneath a finished hard surface. Woody matter that is no use for construction can be chipped and laid for paths or just used as a mulch.

While you're waiting for planning you can be keeping an eye out for cheap or recycled materials. You should look to source locally, especially where heavy items such as paving and topsoil are concerned. Reclaimed timber materials can often be recycled for constructing garden sheds, raised beds and pergolas, and reclaimed metal can provide elegant and unique structures for various climbing plants.

New materials will have a variety of different impacts. Some stone products are imported from abroad, though this is hard to justify when local alternatives are readily available. Concrete tiles and paving products are higher in embodied energy, but serve a useful purpose. They're cheaper, and last well, too. Decking, where it's made of timber, is inherently eco-friendly – so long as the wood is sustainably sourced, harvested and replanted; it is low on concrete use, has a relatively small carbon footprint, and will last a generation if properly maintained.

Drainage is highly site dependent, but whatever you can do to eliminate or slow down the passage of rainwater into the public drainage system will reduce the incidence of flooding downstream. This is known as sustainable drainage or SuDS, and can be achieved in several ways, via permeable paving, soakaways, harvesting rainwater and introducing holding ponds. Front gardens, often paved over for parking, should always have permeable surfacing.

Water use

As a proportion of our total household potable water use, garden watering for plants etc is normally a fairly small percentage. Water butts will provide unchlorinated water for use in the garden, and it's quite rare to empty them – normally you have the opposite issue, and they are full to overflowing after periods of heavy rainfall.

Try to resist the urge to use mains water on lawn that turns brown – this top layer is only the foliage that dies back in drought conditions, the roots will normally remain undamaged and the lawn will quickly recover once the rain returns. Aim to only use plants that are appropriate for the ground conditions and light levels.

Possibly a larger water use in the garden these days may be jet-washing block paving and slabs, or even washing the car. There's no reason why you can't use the harvested rainwater for all of these purposes.

QUICK GUIDE DRIVEWAY MATERIALS & COSTS

BLOCK PAVING

Block paving is a popular, attractive driveway choice. It features a patterned design using interlocking stones, offering style and character. It's highly durable, can handle heavy loads and some types allow great water drainage. The range of stone styles available means you'll find an option perfect for your scheme, whether it's traditional or modern.

COST £70–£120 per m²

TARMAC

Tarmac offers a strong, smooth, and low-maintenance surface. Made from stone and bitumen, it's ideal for cars and copes well with weather extremes. While not the most aesthetically pleasing, it's practical, skid-resistant, and recyclable – making it a sound option for busy driveways.

COST £45 per m² (material). Budget £60 per m² for excavation

IMPRINTED CONCRETE

This decorative driveway solution mimics more expensive materials, using patterns and textures on poured concrete. It creates a sleek, continuous surface that's resistant to sinking and weeds. Highly durable and low maintenance, imprinted concrete is ideal for those looking for a stylish finish without sacrificing strength or longevity.

COST £60–£100 per m²

RESIN BONDED

This material involves mixing clear resin with decorative stones, delivering a sleek and durable finish. Resin bonded driveways are highly resistant to weeds, they set quickly and come in many colours and styles. With proper installation, they're low maintenance, too, and meet SuDS standards.

COST £100–£150 per m²

GRAVEL

Gravel driveways offer a rustic, natural look with simple installation. Made from loose stones compacted into place, they're affordable, easy to install, permeable and great for drainage. Gravel complements many home styles, though it may need occasional raking or topping up to stay tidy.

COST £15–£40 per m²

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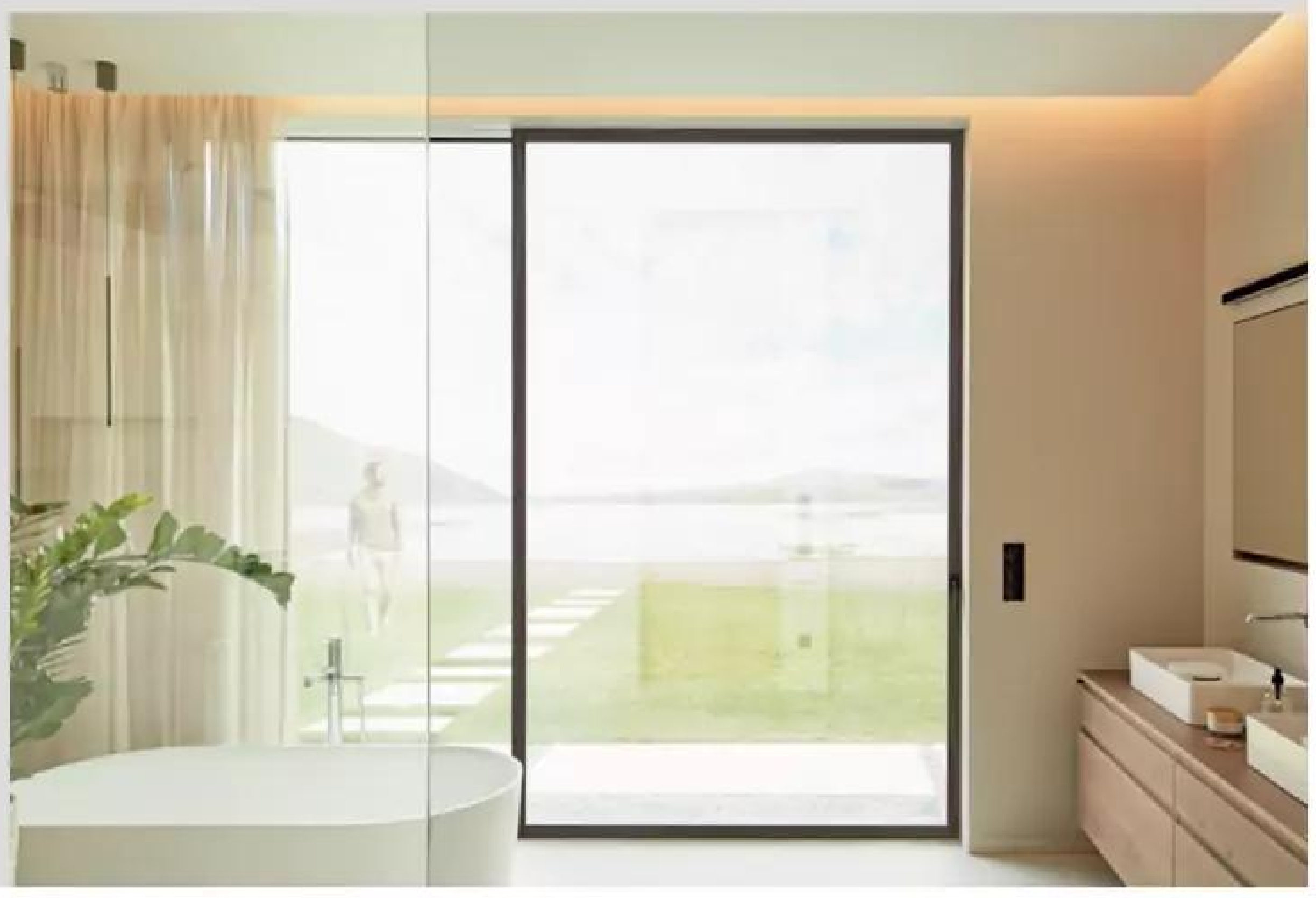

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FIND YOUR DREAM BUILDING PLOT

PlotBrowser.com is a 100% free-to-use plot and property finder, packed with 1,000s of home building opportunities. Here's a taster of the fantastic self build plots, renovation properties and conversions currently for sale near you

PlotBrowser.com is the latest addition to Build It's series of powerful project tools (**www.buildit.co.uk/tools**) designed to put you on the path to self build success.

Updated daily, this is your dedicated resource for finding genuine self build land and renovation opportunities. You'll find 1,000s of plots and properties to view nationwide, and each listing features the site details, photos, guide price and sellers' contact information – including details such as whether the plot or property is being sold at auction and, if so, when.

Crucially, we've done a big part of the plot-hunting job for you: all our plots already have either outline or full planning permission in place, so you won't have to waste your time looking at duds that might never gain consent to build.

What's more, we've sourced the planning reference for you, so that you can quickly and easily identify the current planning consent on the relevant local authority's website. This will arm you with a full understanding of the site's planning history and what's been permitted, so you can gauge whether the plot can support the kind of house you'd like to create.

The following pages are a sample of the plots, renovations and conversion projects available on **PlotBrowser.com** this month.

GOT A PLOT TO SELL?
Head to **PlotBrowser.com** and register as a seller to list your plot for free.

PlotBrowser from BuildIt magazine

START YOUR PLOT SEARCH

To find more plots with planning permission across the UK, and get free notifications of new opportunities based on your personal criteria, sign up today at **www.PlotBrowser.com**

ENGLAND

BERKSHIRE

BRADFIELD SOUTHEND
Cock Lane
Land for sale with planning permission for the construction of a three-bedroom detached house.
Guide price: £350,000
Planning: West Berkshire Council 23/00494/FUL
Contact: Parkers 01189 841841 pangbourne@parkersproperties.co.uk
Plot ID: 137434

BUCKINGHAMSHIRE

HAZLEMERE
Kestrel Drive
Plot with planning consent for the demolition of the existing bungalow and the construction of a pair of detached four-bedroom homes.
Guide price: £695,000
Planning: Wycombe District Council 22/07126/FUL
Contact: Savills 01494 787792 andy.toogood@savills.com
Plot ID: 137376

LONG MARSTON
Land Adj. Langdale Cottages
Land with consent for a four-bedroom detached property.
Guide price: £575,000
Planning: Dacorum Council 23/02341/FUL
Contact: Savills 01494 787792 andy.toogood@savills.com
Plot ID: 137381

SEER GREEN
The Homestead, Bottom Lane
A semi-rural plot with planning consent for a 465m^2 house, set in 0.94 acres on the edge of the village.
Guide price: £1,995,000
Planning: Chiltern District Council PL/23/2100/FA
Contact: Savills 01494 787792 andy.toogood@savills.com
Plot ID: 137382

CAMBRIDGESHIRE

BRAMPTON
West End
Single plot with planning permission for the construction of a four-bedroom detached dwelling.
Guide price: £175,000
Planning: Huntingdonshire District Council 21/01778/FUL
Contact: Peter Lane & Partners 01480 414800 huntingdon@peterlane.co.uk
Plot ID: 137372

CAMBRIDGESHIRE

FRIDAY BRIDGE
March Road
Land with full planning permission for the erection of a two-storey, three-bedroom detached home.
Guide price: £80,000
Planning: Fenland District Council F/YR22/1383/F
Contact: William H Brown 01945 464451 wisbech@williamhbrown.co.uk
Plot ID: 137409

LITTLEPORT
Hale Fen
Land with planning permission in principle for the erection of a four-bedroom detached house.
Guide price: £300,000
Planning: East Cambridgeshire District Council 22/00403/FUL
Contact: Prime Property Auctions 0141 459 0201 info@primepropertyauctions.co.uk
Plot ID: 137346

TURVES
March Road
A building plot with planning consent in place for a pair of three-bedroom semi-detached houses.
Guide price: £120,000
Planning: Fenland District Council F/YR19/0895/F
Contact: Maxey Grounds & Co - Commercial 01354 602030 development@maxeygrounds.co.uk
Plot ID: 137373

CHESHIRE

CREWE
Stafford Street
Land with full planning permission granted for five houses with off-road parking. A former hall on the site needs demolishing prior to the beginning of construction.
Guide price: £239,000
Planning: Cheshire East Council 11/1367N
Contact: Private seller 07974 891069 toclaire@btinternet.com
Plot ID: 137396

LOWER PEOVER
Middlewich Road
Land with planning permission for the construction of a detached four-bedroom dwelling.
Guide price: £695,000
Planning: Cheshire West and Chester Council 20/01791/FUL
Contact: Savills 01565 632618 knutsford@savills.co.uk
Plot ID: 137359

WILMSLOW
Hawthorn Grove
Plot with planning consent granted for a two-storey detached property.
Guide price: £600,000
Planning: Cheshire East Council 24/0313M
Contact: Gascoigne Halman 01625 536434 wilmslow@gascoignehalman.co.uk
Plot ID: 137489

CORNWALL

FALMOUTH
Mylor
Land with consent for a modern four-bedroom detached home.
Guide price: £1,000,000
Planning: Cornwall Council Refer to agent
Contact: Lillicrap Chilcott 01872 273473 sales@lillicrapchilcott.com
Plot ID: 137415

HELSTON
Trewennack
Single plot with planning permission for a four-bedroom detached home.
Guide price: £140,000
Planning: Cornwall Council PA24/08215
Contact: Christophers Estate Agents 01326 565 566 property@christophers.uk.com
Plot ID: 137408

ST. AUSTELL
Higher Trezaise
Plot with consent for a four-bedroom,

TYPES OF BUILDING PLOT

New homes can be built on a range of sites and knowing about the opportunities can help you spot land with potential. Here are the key options:

BROWNFIELD SITES

This refers to previously developed land that is or was once occupied by a permanent structure. Government policy supports the provision of new housing in such locations and, on a practical level, services are likely to be in place.

DEMOLISH & REPLACE

A type of brownfield opportunity where you could knock down a building, such as an old bungalow, and construct a new home in its place. It's often more cost-effective than a renovation as VAT can be reclaimed on a new build project.

EDGE-OF-SETTLEMENT

Depending on the maps in the relevant council's Local Plan, this kind of site may or may not fall within existing built-up area boundaries. Generally, policies allow development within this zone, but control it very strictly outside. Any undeveloped land, known as greenfield, will typically only support housing to serve the needs of agriculture, replacement dwellings and some infill.

INFILL PLOTS

Many councils define this as a small gap between an otherwise built-up frontage or group of houses. Infilling is usually allowed within settlements' development boundaries, and sometimes outside of these. Gaining consent will be more difficult in zones such as conservation areas.

GARDENS

Contrary to the 'backland development' headlines of a few years ago, planners still allow schemes on garden plots, especially in places that are considered to be built-up. You may even be lucky enough to have a large space that could work as a viable site or know someone who is willing to negotiate a fair price.

SERVICED PLOTS

Land that's ready to build on, with utilities, highway access and potentially other infrastructure already in place, as well as at least outline planning consent. This route offers more certainty over early-stage costs.

detached split-level dwelling with balcony and double garage.
Guide price: £125,000
Planning: Cornwall Council PA17/12235
Contact: eXp UK - South West 020 3641 1316 adam.day@exp.uk.com
Plot ID: 137411

TREGONY
Roseland Peninsula
Land with planning consent for a three-bedroom residential dwelling.
Guide price: £95,000
Planning: Cornwall Council PA20/04221
Contact: Philip Martin 01872 242244 sales@philip-martin.co.uk
Plot ID: 137436

CUMBRIA

WHITEHAVEN
Sandwith
Plot with outline planning permission for a two-bedroom detached home.
Guide price: £95,000
Planning: Copeland Borough Council 4/14/2194/001
Contact: Davidson & Robertson Rural 0131 449 6212 office@drrural.co.uk
Plot ID: 137487

WINDERMERE
Nelson Road
Land with planning permission for the construction of a three-bedroom detached bungalow.
Guide price: £200,000
Planning: Lake District National Park 7/2018/5624
Contact: Thomson Hayton Winkley 01539 447825 windermere@thwestateagents.co.uk
Plot ID: 137340

DERBYSHIRE

MIDDLETON-BY-YOULGRAVE
Stone's Barn
Single plot with planning consent for the conversion of the existing barn into a single dwelling.
Guide price: £175,000
Planning: Peak District National Park NP/DIS/1124/1204
Contact: Fisher German 01530 410840 ashbyagency@fishergerman.co.uk
Plot ID: 137386

OAKERTHORPE
Chesterfield Road
Plot with planning permission for the construction of a four-bedroom, three-bathroom detached house.
Guide price: £350,000
Planning: Amber Valley Borough Council AVA-2024-0008
Contact: Hall & Benson 01773 521771 alfreton@hallandbenson.co.uk
Plot ID: 137421

DERBYSHIRE

HOLMEWOOD
Gables Close
Plot of land with outline planning permission granted for a single detached bungalow.
Guide price: over £150,000
Planning: North East Derbyshire District Council 23/00703/OL
Contact: W T Parkers 01246 232156 residential@wtparker.com
Plot ID: 137423

DEVON

BIDEFORD
Cleave Wood
Part of a small gated development within reach of the North Devon coast, three plots are available, measuring around 19.5m x 13.5m. Each plot offers generous living space, tailored to your specification, with a drive, car port and roof terrace.
Guide price: over £250,000
Planning: Torridge District Council Refer to agent
Contact: Webbers Property Services Ltd 07887 661061 malcolm.prescott@webbers.co.uk
Plot ID: 137490

BRADNINCH
Whitley Copse
Plot of land with planning permission for the construction of a three-

PROMOTED PLOT

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DEVELOPMENT Wellbank
LOCATION Bootle, Cumbria
AVAILABLE PLOTS 17 in Phase Two
PLOT SIZE 400m²-1,000m²
PLANNING Lake District National Park Authority 7/2023/4052
CONTACT 07511 087197 wellbankpark.co.uk

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● Designed to support health and wellbeing in the community
● Prioritises and promotes sustainability and biodiversity
● Highly energy-efficient homes
● Offers renewable energy solutions for low-impact living
● Dream location in the Lake District National Park, with lakes, fells and coast on your doorstep.

GLOUCESTERSHIRE

UPPER LYDBROOK
East View Squires Road
Plot of around one acre with full planning permission for a two-bedroom bungalow and several outbuildings, following the demolition of the existing building.
Guide price: over £300,000
Planning: Forest of Dean District Council P0707/22/FUL
Contact: Hattons Estate Agents 01594 447043 office@hattonsestateagents.com
Plot ID: 137472

bedroom detached dwelling.
Guide price: £350,000
Planning: Mid Devon District Council 23/00824/PNCOU
Contact: Stags 01392 2 55202 exeter@stags.co.uk
Plot ID: 137355

BRAUNTON
Lower Park Road
Land with planning permission for the demolition of existing barn and construction of three dwellings.
Guide price: £800,000
Planning: East Riding of Yorkshire Council 21/00342/plf
Contact: North Devon Council 76333
Plot ID: 137385

BUCKLAND BREWER
Meadow Park
A generous plot with full planning permission for the development of two detached bungalows.
Guide price: £350,000
Planning: Torridge District Council 1/0409/2023/FUL
Contact: Webbers Bideford 01237 472344 jason.gilder@webbers.co.uk
Plot ID: 137492

CULMSTOCK
Millmoor
Plot of land with consent for a four-bedroom detached home.
Guide price: £175,000
Planning: Mid Devon District Council 24/00879/FULL
Contact: Stags 01823 662822 wellington@stags.co.uk
Plot ID: 137410

DOLTON
Barfield Road
A three-bedroom detached bungalow with planning permission for another two-bedroom, detached home.
Guide price: £400,000
Planning: Torridge District Council 1/0564/2024/FUL
Contact: Bond Oxborough Phillips Torrington 01805 624426 howard.bowles@bopppropertycom
Plot ID: 137387

TAWSTOCK
Lake Road
Plot of land for sale with planning permission granted for a pair of four- to five-bedroom properties.
Guide price: £330,000
Planning: North Devon Council 76439, 73334
Contact: Stags 01271 322833 barnstaple@stags.co.uk
Plot ID: 137441

WESTWARD HO!
Buckleigh Road
A 0.5-acre plot in a leafy mature site with full planning permission granted for the erection of five dwellings.
Guide price: £700,000
Planning: Torridge District Council 1/0891/2023/FUL
Contact: Webbers Bideford 01237 472344 jason.gilder@webbers.co.uk
Plot ID: 137491

DORSET

SHERBORNE
Yetminster
Central village plot with full planning permission and a certificate of lawfulness. Planning permission is granted for a four- to fiive-bedroom passive house, designed by award-winning architect Justin Bere.
Guide price: £250,000
Planning: West Dorset District Council P/VOC/2022/01493
Contact: Private seller 07977 407845 mm@city.uk
Plot ID: 137453

EAST SUSSEX

DANE HILL
Church Lane
Land for sale with planning permission granted for a five-bedroom detached dwelling.
Guide price: £495,000
Planning: Wealden District Council WD/2023/2154/F
Contact: Batcheller Monkhouse 01444 453181 hh@batchellermonkhouse.com
Plot ID: 137354

ESSEX

COLCHESTER
Finch Way
A 0.6-acre plot with full planning permission for a five-bedroom detached house of approx 232m^2.
Guide price: £295,000
Planning: Colchester City Council 242451
Contact: Stanfords 01206 842156 nk@stanfords-colchester.co.uk
Plot ID: 137406

GREAT NOTLEY
Ludham Hall Lane
Four plots available, with the choice of working with the developer through a custom build route, or taking on full control with a self build option. Plots range from 557m^2 to 697m^2, with consent for a two-storey home or a single-storey bungalow.
Guide price: over £250,000
Planning: Braintree District Council 25/01028/FUL
Contact: Private seller 07793 753183 daniel@widfordproperty.com
Plot ID: 137463

THORRINGTON
Station Road
Plot of land with planning permission for a four-bedroom detached house.
Guide price: £600,000
Planning: Tendring District Council 22/01695/FUL
Contact: Fenn Wright 01376 516464 witham@fennwright.co.uk
Plot ID: 137485

GLOUCESTERSHIRE

FILKINS, LECHLADE
Barn at Broughton Poggs
General purpose farm building set in a rural 2.74 acres of land. Permitted development for conversion into a two-bedroom home with covered parking.
Guide price: £550,000
Planning: West Oxfordshire District Council 24/02063/PN56
Contact: Purple Bricks 0800 810 8008 info@purplebricks.com
Plot ID: 137468

OLDCROFT, LYDNEY
Cut and Fry Road
Land with full planning permission for a pair of detached, four-bedroom family homes, each offering spacious living, complete with off-road parking, a garage, and enclosed gardens.
Guide price: £400,000
Planning: Forest of Dean District Council P0240/24/ful
Contact: Hatton Estate Agents 01594 447043 office@hattonsestateagents.com
Plot ID: 137471

GREATER LONDON

CROUCH END
Rear of Wolseley Road
A plot with planning permission for a five-bedroom, 230m^2 award-winning architect-designed house.
Guide price: £875,000
Planning: London Borough of Haringey HGY/2023/0724
Contact: Private seller 07710 130002 dscheinmann@me.com
Plot ID: 137460

OXFORDSHIRE

BANBURY
Barn at Great Bourton
A rural barn with class Q consent granted on appeal for residential development. Plans allow for its conversion into a contemporary, three-bedroom 270m^2 home.
Guide price: £350,000
Planning: Cherwell District Council 23/01339/Q56
Contact: Fisher German 01295 271555 enquiries@fishergerman.co.uk
Plot ID: 137467

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LITTLE HEATH

Osbourne Road

A building plot with planning permission granted for the erection of three detached family homes.

Guide price: £1,500,000

Planning: Welwyn Hatfield Council 6/2023/2559/full

Contact: Duncan Perry Estate Agents 01707 664549 sales@duncanperry.co.uk

Plot ID: 137341

HAMPSHIRE

BASINGSTOKE

Reading Road

A 0.25-acre site with planning consent approved for a self-contained two-bedroom granny annexe at the rear.

Guide price: £525,000

Planning: Basingstoke and Deane Borough Council Refer to agent

Contact: Private seller 07846 598119 optimisteve@gmail.com

Plot ID: 137405

HEREFORDSHIRE

PONTRILAS

Sunny View

Plot of land with planning permission in place for the construction of a four-bedroom detached dwelling.

Guide price: £80,000

Planning: Herefordshire Council 212128

Contact: Flint & Cook 01432 355455 hereford@flintandcook.co.uk

Plot ID: 137500

ROSS-ON-WYE

Ryeford

Land with planning permission for the conversion of the existing barn into a four-bedroom home.

Guide price: £350,000

Planning: Herefordshire Council DCSE2005/3042/F

Contact: Brightwells 01432 343800 property@brightwells.com

Plot ID: 137424

HERTFORDSHIRE

BRICKENDON

Brickendon Lane

Barns with planning permission for three-bedroom homes, set in 0.25 acres with open countryside views.

Guide price: £550,000

Planning: East Hertfordshire District Council 3/17/0782/FUL

Contact: Private seller 07365 150340 crispin.lowery@gmail.com

Plot ID: 137507

HARPENDEN

Annables Lane

A plot of about 0.41 acres with planning consent granted for the erection of a striking and substantial new house. Designed by CODE Architects, the house will be around 650m², laid out over three floors.

Guide price: £1,750,000

Planning: St Albans City and District Council 5/2024/0565

Contact: Savills 01494 787792 andy.toogood@savills.com

Plot ID: 137384

STOCKING PELHAM, BUNTINGFORD

Land adj. Church End

A building plot with planning permission granted for the construction of a 260m² four-bedroom property with gardens.

Guide price: £500,000

Planning: East Hertfordshire District Council 3/24/0265/FUL.

Contact: Fine and Country 07859 977793 heather.curtis@fineandcountry.com

Plot ID: 137430

ISLE OF MAN

BALLASALLA

Ballamodha Straight

Land with planning permission granted for the renovation and extension of the existing dwelling to form a two-bedroom home.

Guide price: £175,000

Planning: Planning & Building Control Isle of Man 19/01290/B

Contact: Chrystals 01624 623778 douglas@chrystals.co.im

Plot ID: 137468

ISLE OF WIGHT

COWES

Lower Hornhill Rew Street

Plot of land with planning permission granted for the construction of a two-bedroom detached dwelling.

Guide price: £110,000

Planning: Isle of Wight Council 20/01943/ful

Contact: The Agency UK 020 8128 0617 enquiries@theagencyuk.com

Plot ID: 137378

LINCOLNSHIRE

SLEABURY

Lancaster Drive

Plot with planning permission for the comstruction of a single two-bedroom detached bungalow.

Guide price: £95,000

Planning: North Kesteven District Council 23/1291/varcon

Contact: Mark Rice Estate Agents Limited 01529 414488 ben@markrice.co.uk

Plot ID: 137343

WYBERTON

West End Road

A large building plot with planning consent granted for the construction of four detached properties.

Guide price: £320,000

Planning: Boston Borough Council B/17/0500

Contact: Pygott & Crone 01205 359111 / 01205 359900 boston@pygott-crone.com

Plot ID: 137348

WARWICKSHIRE

PROMOTED PLOT

WALTON MEADOW, WELLESBOURNE

Walton Meadow by Youngman Lovell presents a rare opportunity to create your dream home within an exclusive development of just 10 custom and self-build serviced plots.

Guide price: Plots from £370,000

Planning: Stratford-on-Avon District Council 22/00182/OUT

Contact: For more information, email info@youngmanlovell.com

NORFOLK

DOCKING

Plot SB1

Plot SB1 measures around 367m² and comes with consent for a 2.5-storey home of up to 248.5m². This corner plot has ample garden space, a private driveway, and opportunity to integrate sustainability features such as air source heating.

Guide price: POA

Planning: Kings Lynn and West Norfolk Borough Council APP/V2635/W/23/3320506

Contact: Private seller info@elemento.group

Plot ID: 137448

NORTH YORKSHIRE

POCKLINGTON

Burnby Lane

Land with an existing detached bungalow and planning permission for two additional detached dwellings.

Guide price: £525,000

Planning: East Riding of Yorkshire Council 24/01136/PLF

Contact: R M English 01759 303202 pocklington@rmenglish.co.uk

YORK

Sheriff Hutton

A 0.34-acre plot with planning permission for the conversion of an existing agricultural dwelling into a two-bedroom, 111m² home.

Guide price: £418,000

Planning: North Yorkshire Council ZE24/07478/GPAGB

Contact: Stephensons Estate Agents 01347 821145 easingwold@stephensons4property.co.uk

Plot ID: 137281

NOTTINGHAMSHIRE

GEDLING

Shelford Road

Land with planning permission for a three-bedroom detached house.

Guide price: £100,000

Planning: Gedling Borough Council 2024/0465

Contact: Holden Copley 0115 773 4300 Mapperley office@holdencopley.co.uk

Plot ID: 137350

OXFORDSHIRE

BAMPTON

Chandler Close

Plot in a sought-after village with outline consent to demolish the existing garages and build three homes with parking and gardens.

Guide price: £300,000

Planning: West Oxfordshire District Council 24/03041/OUT

Contact: Andrews Estate Agents 01993 703024 witney@andrewsonline.co.uk

Plot ID: 137465

NaCSBA
National Custom & Self Build Association

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Find Out More at

www.nacsba.org.uk

NaCSBA
National Custom & Self Build Association

SOUTH YORKSHIRE

SHEFFIELD
Plot 5, Houndkirk View, Derbyshire Lane
One of seven custom build plots, plot 5 measures 449m^2 and comes with full consent for a 181m^2, four-bedroom detached home.
Guide price: £240,000
Planning: Sheffield City Council Refer to Agent
Contact: Custom Build Homes 0345 2234 452 hello@custombuildhomes.co.uk
Plot ID: 137399

BRIZE NORTON
Burford Road
One of two plots with outline consent in place for a detached home, set in one third of an acre with provisions for a custom build property.
Guide price: £275,000
Planning: West Oxfordshire District Council 20/01915/OUT
Contact: Oliver James 01235 555007 abingdon@oliverjames.com
Plot ID: 137469

RADLEY, ABINGDON
Sugworth Crescent
Single plot with planning consent granted for a detached chalet house with gardens, garage and parking.
Guide price: £395,000
Planning: Vale of White Horse District Council P21/V3119/FUL
Contact: Oliver James 01235 555007 abingdon@oliverjames.com
Plot ID: 137466

RUTLAND

EXTON
Tickencote South
Land for sale with planning permission for the erection of a four-bedroom contemporary dwelling.
Guide price: £1,250,000
Planning: Rutland County Council 2023/0397/FUL
Contact: The Modern House 0203 795 5920 info@themodernhouse.com
Plot ID: 137379

SOMERSET

BATH
Rockcliffe Avenue
A quiet, conservation area plot for a modern three- to four-bedroom family home on river frontage with Riporian rights, landing stage & swimming platform already constructed. All utilities on site. Full planning permission received and enacted as the previous dwelling had been demolished. Full set of working drawings available for a unique, architect-designed eco house.
Guide price: £600,000
Planning: Bath and North East Somerset Council 18/02261/FUL
Contact: Private seller globetrotterdog@gmail.com
Plot ID: 137459

GLASTONBURY
Hexton Road
Plot of land with planning permission granted for a four-bedroom property and work already commenced.
Guide price: £65,000
Planning: Rutland County Council 2023/0397/FUL
Contact: Mendip District Council 2018/2849/ful
Plot ID: 137433

SOUTH YORKSHIRE

TICKHILL
Bawtry Road
Single plot of land with planning permission for the erection of a three-bedroom detached property.
Guide price: £190,000
Planning: Bassetlaw District Council 21/03353/ful
Contact: William H Brown 01302 710735 bawtry@williamhbrown.co.uk
Plot ID: 137390

TOTLEY
Baslow Road
Building plot with consent for a three- to four-bedroom detached house.
Guide price: £250,000
Planning: Sheffield City Council 25/00262/FUL
Contact: Eadon Lockwood & Riddle 0114 276 1277 info@elr.co.uk
Plot ID: 137444

WEST MIDLANDS

CANNOCK
Plot 6, The Goat Paddock
Land with planning permission for a five-bedroom detached dwelling.
Guide price: £220,000
Planning: Cannock Chase District Council CH/24/093
Contact: Cottons 0121 247 2233 auctions@cottons.co.uk
Plot ID: 137377

WEST YORKSHIRE

BRIGHOUSE
Brooke Street
Single plot with planning consent for a five-bedroom detached house.
Guide price: £150,000
Planning: Calderdale Metropolitan Borough Council 20/00601/FUL
Contact: Reloc8 Properties 01422 298771 info@reloc8properties.com
Plot ID: 137353

HECKMONDWIKE
Cemetry Road
1.45 acres of land with planning permission for the construction of five, four-bedroom homes.
Guide price: £475,000
Planning: Kirklees Council 2022/62/93390/E
Contact: Holroyd Miller 01924 299494 info@holroydmiller.co.uk
Plot ID: 137503

WAKEFIELD
Red Hall Lane
Building plot with consent for the construction of four detached houses.
Guide price: £450,000
Planning: Wakefield Metropolitan District Council 22/01364/ful
Contact: Manning Stainton 01132 819181 horsforth@manningstainton.co.uk
Plot ID: 137498

WILTSHIRE

CHOLDERTON
Walnut Cottage
Level plot of around 0.6 acres with views across the village and horse fields. Planning consent is granted for a two-storey, four-bedroom home and a meaningful start has been made with the demolition of the previous garage and the first trench dug.
Guide price: over £450,000
Planning: Wiltshire Council PL/2021/10166
Contact: Private seller kennethrmcquarrie@gmail.com
Plot ID: 137429

WORCESTERSHIRE

MALVERN
Albert Park Road
A plot with planning permission for a four-bedroom detached home.
Guide price: £600,000
Planning: Malvern Hills District Council M/24/01067/ful
Contact: John Goodwin 01684 892809 malvern@johngoodwin.co.uk
Plot ID: 137446

STOURPORT-ON-SEVERN
Crossway Green
A plot comprising a pair of semi-detached dwellings with planning consent for two further homes.
Guide price: £950,000
Planning: Wychavon District Council W/22/02727/ful
Contact: Andrew Grant 01384 370232 wyre@andrew-grant.co.uk
Plot ID: 137351

UPTON-UPON-SEVERN
Holly Green
Land with planning permission for three detached two-storey homes and a detached bungalow.
Guide price: £700,000
Planning: Malvern Hills District Council 5/00617/out
Contact: John Goodwin 01684 892809 malvern@johngoodwin.co.uk
Plot ID: 137518

SCOTLAND

ABERDEENSHIRE

BRIDGE OF DON
South Smithy Cottage
Mostly level plot with full planning permission in place for a detached, four-bedroom, chalet-style house extending to around 200m^2 with a double garage and ample gardens.
Guide price: £130,000
Planning: Aberdeen City Council 240808/DPP
Contact: McEwan Fraser Legal 0131 524 9797 mandy.taylor@mcewanfraserlegal.co.uk
Plot ID: 137428

METHLICK
Plot B Monteach Road
A rural 0.6-acre plot with previous consent for a 1.5- to two-storey home. The plot enjoys uninterrupted south-facing views across rural farmland.
Guide price: £85,000
Planning: Aberdeenshire Council APP/2020/0566
Contact: Judith Mackie 07736 546518 judith@compassestates.uk
Plot ID: 137365

ARGYLL & BUTE

APPIN
Plot 1, Tynribbie
Plot of land with planning permission for the construction of a four-bedroom detached dwelling.
Guide price: £85,000
Planning: Argyll and Bute Council 14/01543/PP

PROMOTED PLOT

LUXURY SELF BUILD OPPORTUNITY

1

2

DEVELOPMENT D'Urton Rise

LOCATION Broughton, Lancashire, PR3 5LF

GUIDE PRICES Approximately £600,000-£800,000 per plot

PRODUCT RANGE Customisable five-bedroom detached houses

CONTACT 01614 705910 (Option 2) info@ascot-homes.co.uk

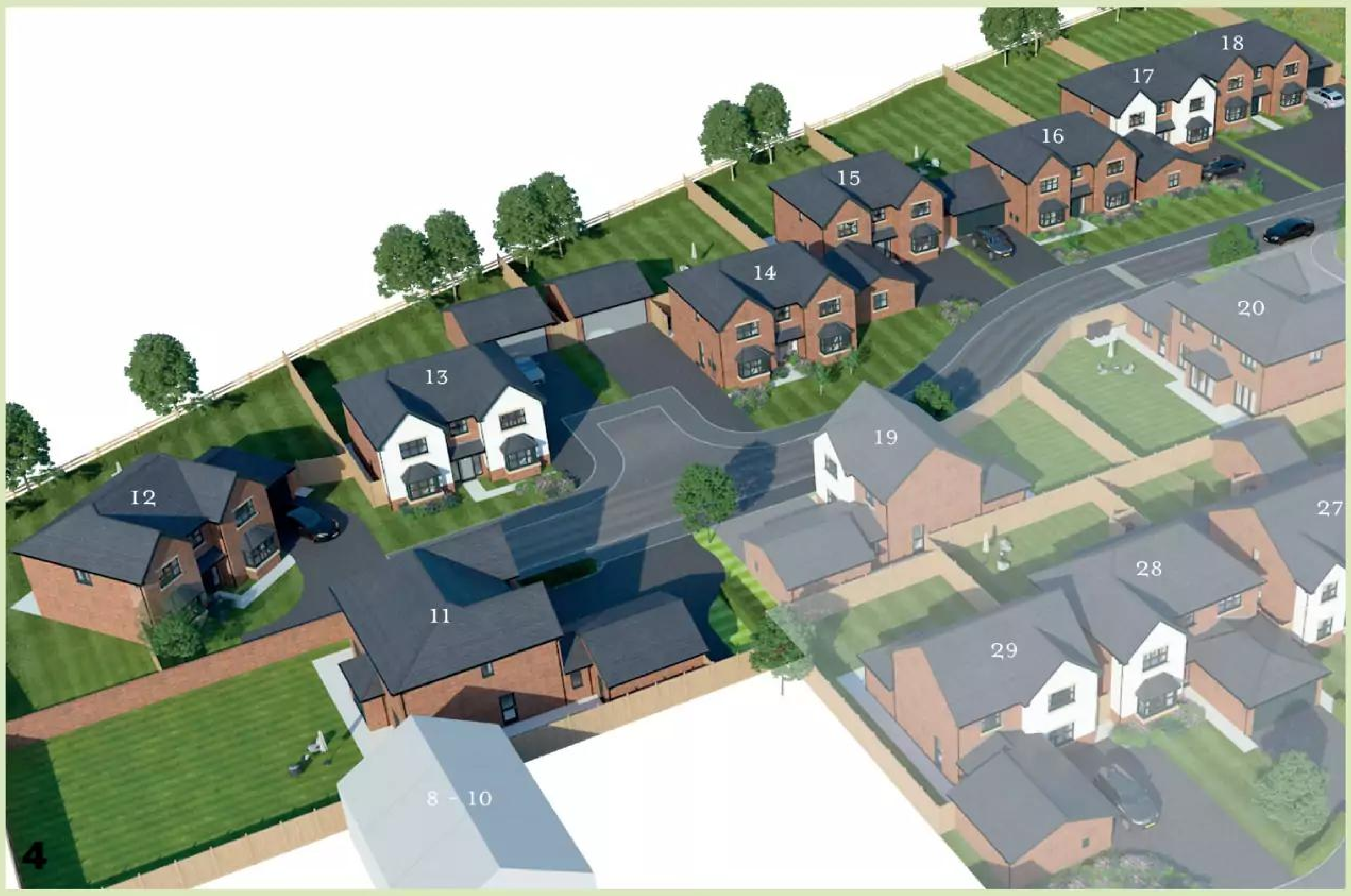
With stunning views over to the Trough of Bowland, D'Urton Rise in Broughton offers the opportunity to create your own bespoke five-bed house, designed by Ascot Homes.

A luxurious custom build development of beautifully-designed homes, D'Urton Rise is in a highly sought-after location on the northern fringes of Preston, with stunning views across some of Lancashire's most beautiful countryside.

Nestled in a select location, off the beaten track via its own private tree-lined entrance drive, the development mixes traditional architecture with contemporary interiors. Each plot features its own large rear garden overlooking open countryside towards the Beacon Fell Country Park and the Bowland Fells. Access roads and sewerage are already in place, ensuring a smooth building project.

Ascot Homes builds a select range of premium quality homes. At D'Urton Rise, we can offer you two great purchasing options: ready-built and ready to move into; or bespoke built, where the interior specification is completely tailored to you.

3



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5

6

1 Each scheme features high-quality German kitchens

2 Tiles and sanitaryware are included in the spec

3, 4 & 5 The development is made up of a collection of charming, homes with spacious gardens

6 The site has fantastic views over the Bowland Fells

For further details and to check out the available plots in more detail, visit www.ascot-homes.co.uk

HIGHLAND

BONNAVULLIN, DRIMNIN
Plot 3, East of Seaview
A 0.3-acre plot with stunning panoramic views. Full planning permission is in place for a four-bedroom detached house.
Guide price: £85,000
Planning: Highland Council 22/03808/CLP
Contact: Fiuran Property FW 07471 783721 kelie@fiuran.co.uk
Plot ID: 137437

Contact: Fiuran Property 07872 986164 info@fiuran.co.uk
Plot ID: 137394

CAIRNDOW
Plot 1, Pheasant Field
Single plot with planning consent in place for the erection of a four- to five-bedroom detached home.
Guide price: £80,000
Planning: Argyll and Bute Council 09/00463/DET
Contact: Galbraith 01786 434600 stirling@galbraithgroup.com
Plot ID: 137347

FIFE

CAIRNEYHILL
Hilton Road
Land for sale with consent for a single detached property.
Price band: £135,000
Planning: Fife Council 22/03607/PPP
Contact: Morgans Property @01383 620 222 info@morganlaw.co.uk
Plot ID: 137361

HIGHLAND

INCHREE, ONICH, FORT WILLIAM
Three plots South West of Inchree Chalets
One of three plots available in an elevated position with views over Loch Linnhe. Each plot comes with full planning for a contemporary, three-bedroom detached property.
Guide price: over £50,000
Planning: Highland Council 23/03511/FUL
Contact: Fiuran Property FW 07471 783721 kelie@fiuran.co.uk
Plot ID: 137475

KENTRA, ACHARACLE
Plot North West of Duneira
A level, serviced plot in an elevated position on the Ardnamurchan Peninsula. The 0.45-acre site has full planning for a detached house.
Guide price: £90,000
Planning: Highland Council 24/04760/FUL
Contact: Fiuran Property FW 07471 783721 kelie@fiuran.co.uk
Plot ID: 137479

PERTH & KINROSS

GRAND TULLY
Lageonan Road
Land with planning permission granted for the construction of a small detached property.
Guide price: £85,000
Planning: Perth and Kinross Council 23/01564/fll
Contact: Next Home 01738 444 342 sales@nexthomeonline.co.uk
Plot ID: 137357

SCOTTISH BORDERS

LEADBURN
Kingswood
An opportunity to develop a steading into a two-bedroom, sustainable property. Uninterrupted panoramic views of the surrounding countryside.
Guide price: £140,000
Planning: Scottish Borders Council 05/02215/FUL
Contact: Private seller 07413 805550 clair_michele@yahoo.co.uk
Plot ID: 137388

WALES

CARMARTHENSHIRE

AMMANFORD
Wernoleu Road
A building plot with planning permission for a pair of five- to six-bedroom detached properties.
Guide price: £200,000
Planning: Carmarthenshire County Council PL/0879
Contact: Thomas & Thomas 01269 597949 ammanford@thomasandthomas-property.co.uk
Plot ID: 137364

GORSLAS
Penygroes Road
Plot with outline planning permission granted for a detached property.
Guide price: £67,500
Planning: Carmarthenshire County Council PL/00612
Contact: Dawsons 01792 646060 sw@dawsonsproperty.co.uk
Plot ID: 137488

TYCROES
Hendre Road
Land with planning consent for a single detached house with parking.
Guide price: £70,000
Planning: Carmarthenshire County Council PL/08354
Contact: Anna Ashton Estate Agents 01269 839392 ammanford@annaashton.wales
Plot ID: 137389

GLAMORGAN

CRYNANT
Garbett Place
A single plot with planning permission for the construction of a four- to five-bedroom dwelling.
Guide price: £110,000
Planning: Neath Port Talbot Council P2021/0732
Contact: Peter Alan 01639 635115 neath@peteralan.co.uk
Plot ID: 137419

SKETTY
Glynderwen Crescent
Land with planning consent for a two- to three-bedroom detached house.
Guide price: £197,500
Planning: Swansea Council 2024/2007
Contact: Dawsons 01792 299655 sk@dawsonsproperty.co.uk
Plot ID: 137369

GWYNEDD

ST CAERNARFON
Rhosbodrual
Plot with consent to complete a partially constructed bungalow.
Guide price: £110,000
Planning: Gwynedd Council C08A/0590/14/ll
Contact: Emoov 0345 561 0050 info@emoov.co.uk
Plot ID: 137374

POWYS

COELBREM
Cefn Nyrle Road
Plot of land with planning permission for six semi-detached dwellings and three detached homes with garages.
Guide price: £129,000
Planning: Powys County Council 23/1403/res
Contact: Paul Fosh Auctions 01633 254044 info@paulfoshauctions.com
Plot ID: 137519

TREGYNON
Bryn Afal
Single plot approx 0.4 acre with full planning consent for a superb two bed oak frame dwelling
Guide price: Offers over £100,000
Planning: Powys County Council 23/1403/res
Contact: Paul Fosh Auctions 01633 254044 info@paulfoshauctions.com
Plot ID: 137519

ASK AN EXPERT AT BUILD IT LIVE

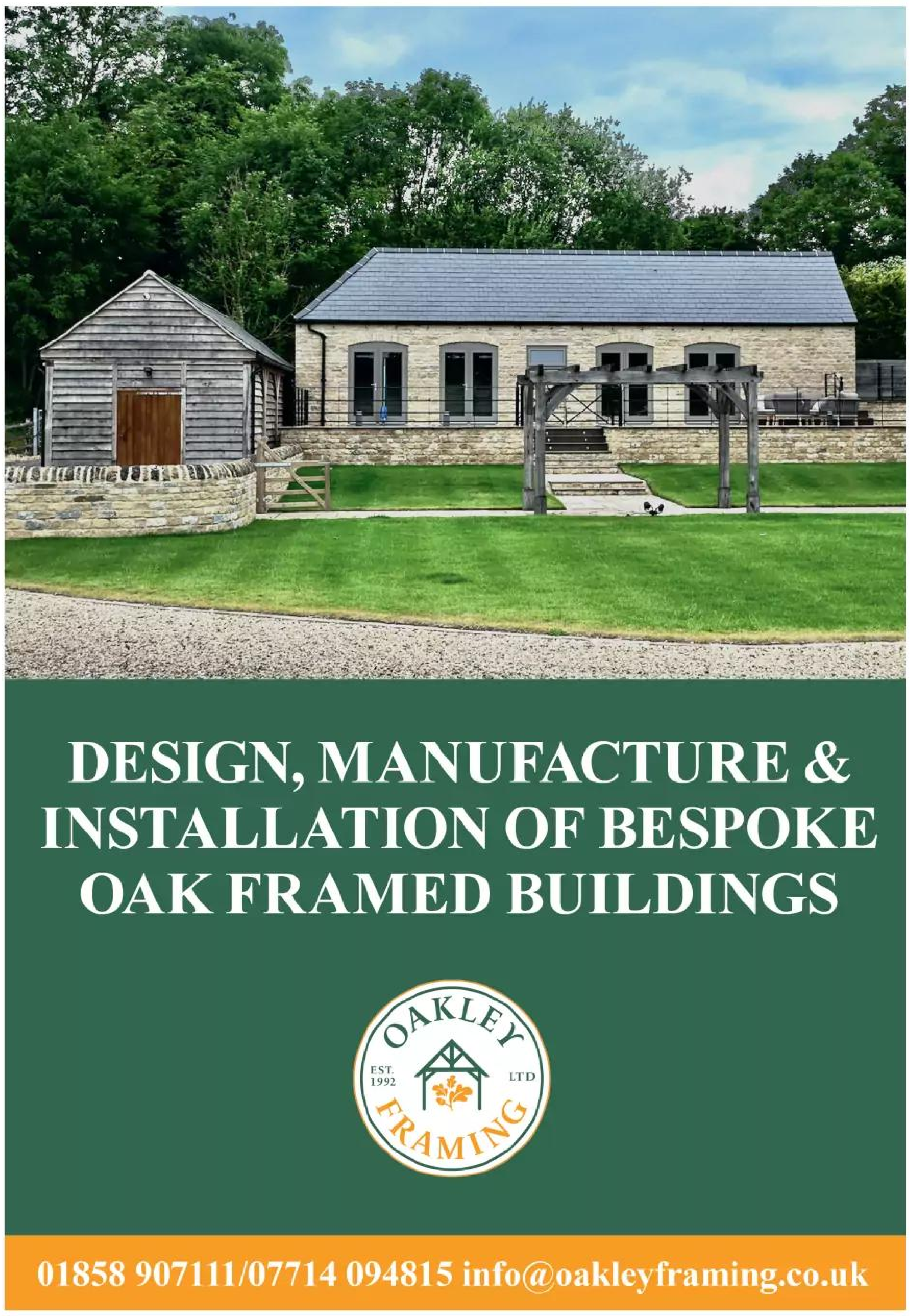
Want more plot finding advice? Join us at Build It Live for our annual exhibitions in Exeter, Kent and Bicester.

Talk to the experts
Our planning experts Julia Riddle and Martin Gaine will be on hand all weekend to answer your questions and help make that first stage of your project a little easier to digest.

Attend our seminar: How to find land and getting planning permission
Whether it's a new build, renovation or extension, creating your dream home starts with obtaining planning consent. Our plot and planning specialist guides you through the essential elements, including submitting your application, and offers invaluable advice on finding the right plot of land.

Visit the LAND ZONE brought to you by PlotBrowser.com
Check out our gallery of current available plots in the region, plus the latest serviced plot projects across the UK. Discover everything you need to know about finding the right plot for your project.

Find out more and book your tickets: **www.builditlive.co.uk**



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The National Custom & Self Build Association campaigns to remove the barriers to more people in the UK building their own home. Look out for the NaCSBA stamp and be assured that you'll be working with a company you can trust.

- All members are committed to working with self- builders in a fair and transparent manner
- All members are funding the growth of the sector so more people can have an individual home
- All members are covered by NaCSBA's consumer Code of Practice – to protect you if things go wrong

A FULL LIST OF MEMBERS CAN BE FOUND AT:

www.selfbuildportal.org.uk/members

SELF BUILD Directory

The self builder's
guide to sourcing
key suppliers
and information

Built Environment Collective

Established
2011

UK projects per annum
100+

Areas Served
Primarily East Anglia & Lincolnshire, with some projects nationwide

BE Collective
BUILT ENVIRONMENT COLLECTIVE

BE Collective is a collaborative team of architects, engineers, surveyors, QSs and energy assessors who simplify the process of creating thoughtful spaces that enhance everyday living. From extensions to statement homes and sympathetic conversions, we offer as much or as little support as you need—whether it's design, structural input, party wall support, PCCs, energy assessments or cost advice. We care about doing things right: offering honest guidance, clear communication and sustainable, cost-effective solutions. With expertise in Passivhaus and low-energy design, we're passionate about homes that are better for people and planet. We'll help make your vision a reality—collaboratively, flexibly and with care.

Tel: **01945 450 694** Web: **www.be-collective.co.uk**

Hetreed Ross Architects

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Established
2001

UK projects per annum
10+

Areas Served
England; South West

Award winning architects, providing bespoke solutions, expert at getting those challenging planning consents for new, existing and listed buildings. Designing energy efficient, sustainable and beautiful spaces, guiding the client through the entire process.

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Julian Owen Associates Chartered Architects

Established
1992

UK projects per annum
70

Areas Served
Nottinghamshire, Derbyshire, Leicestershire, Lincolnshire, South Yorkshire

JULIAN OWEN ASSOCIATES
ARCHITECTS

We are Chartered Architects who provide imaginative, creative and cost-effective design in the East Midlands and surrounding areas. For the past 30 years we have assisted self builders and homeowners with feasibility studies, planning and building regulations applications, tender packages, and contract management. We specialise in energy efficiency and sustainable design and have extensive experience of listed buildings and conservation areas. We work regularly with a network of trusted, cost-effective local builders. Our website offers FREE factsheets describing the design and construction process and a list of nearby building plots.

Tel: **01159 229831** Web: **www.julianowen.co.uk**

Tye Architects

TYE
ARCHITECTS

Established
2002

UK projects per annum
30

Areas Served
Nationwide

Tye Architects is an award-winning architectural studio based in the UK. We are a design-based studio, aiming to listen and clearly understand clients' requirements and the site's context to provide architectural designs that not only embrace, but enhance their surroundings.

Tel: **01525 406677** Web: **www.tyearchitects.com**

Ecological Building Systems

Established
2000

Areas Served
Nationwide

Established in 2000 and based in Ireland and the UK, Ecological Building Systems supplies more natural materials to support the creation of healthy and low-energy buildings. Providing advice and helping to optimise building performance for new builds and retrofits.

Tel: **01228 711511** Web: **www.ecologicalbuildingsystems.com**

HOZO Design

Established
2018

UK projects per annum
<10

Areas Served
Worldwide

HOZO Design creates smart, precise tools for the Evolved Maker. From laser measures to desktop tools like ultrasonic cutters, it empowers creators who embrace creativity, enjoy the process, and transform everyday projects into something truly extraordinary.

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Loft Leg

Established
2012

UK projects per annum
5,000+

Areas Served
Nationwide

Loft Leg Ltd. designs and manufactures raised loft boarding solutions, including Loft Leg and Loft Leg XL. The products raise loft floors above quilt insulation, maintaining energy efficiencies & enabling safe storage and access to equipment such as PV inverters.

Tel: **01282 861001** Web: **www.loftleg.com**

Marmox UK

Established
2000

Areas Served
Nationwide

Marmox UK Ltd is a leading provider of innovative building materials, specialising in waterproof insulation, fireproofing, and thermal bridging solutions. Their products are designed to enhance the durability, safety, and energy efficiency of buildings. Marmox Multiboard, a versatile waterproofing insulation board, is ideal for wetrooms and bathrooms, providing excellent moisture resistance and thermal insulation. The company also offers fireproofing solutions that meet stringent safety standards, ensuring the protection of structures and occupants. Additionally, Marmox's thermal bridging products help to minimise heat loss and improve the overall energy efficiency of buildings.

Tel: **01634 835290** Web: **www.marmox.co.uk**

Mike Wye

Established
1994

Areas Served
Nationwide

For over 30 years Mike Wye Ltd have championed the use of sustainable building and insulation materials. We're the renowned leading supplier of a wide range of eco-friendly building and insulation products, including STEICO wood fibre and Foam Glass aggregate.

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Premier Forest Products

Established
1993

Areas Served
Nationwide

Premier Forest has been supplying responsibly sourced timber materials across the UK for over 30 years. We provide advice on the best product fit for your budget and our in-house machining, joinery and fabrication facilities mean that you have completely customisable solutions at your fingertips. From floor to roof and everything in-between, order your entire timber package including; wall and structure components, roofing timber, cladding, bespoke and specialist joinery finishes and landscaping. Supported by expert advice at every stage. Premier Forest Products. Delivering your vision in timber.

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PYC Insulation

Established
2013

UK projects per annum
275

Areas Served
Nationwide

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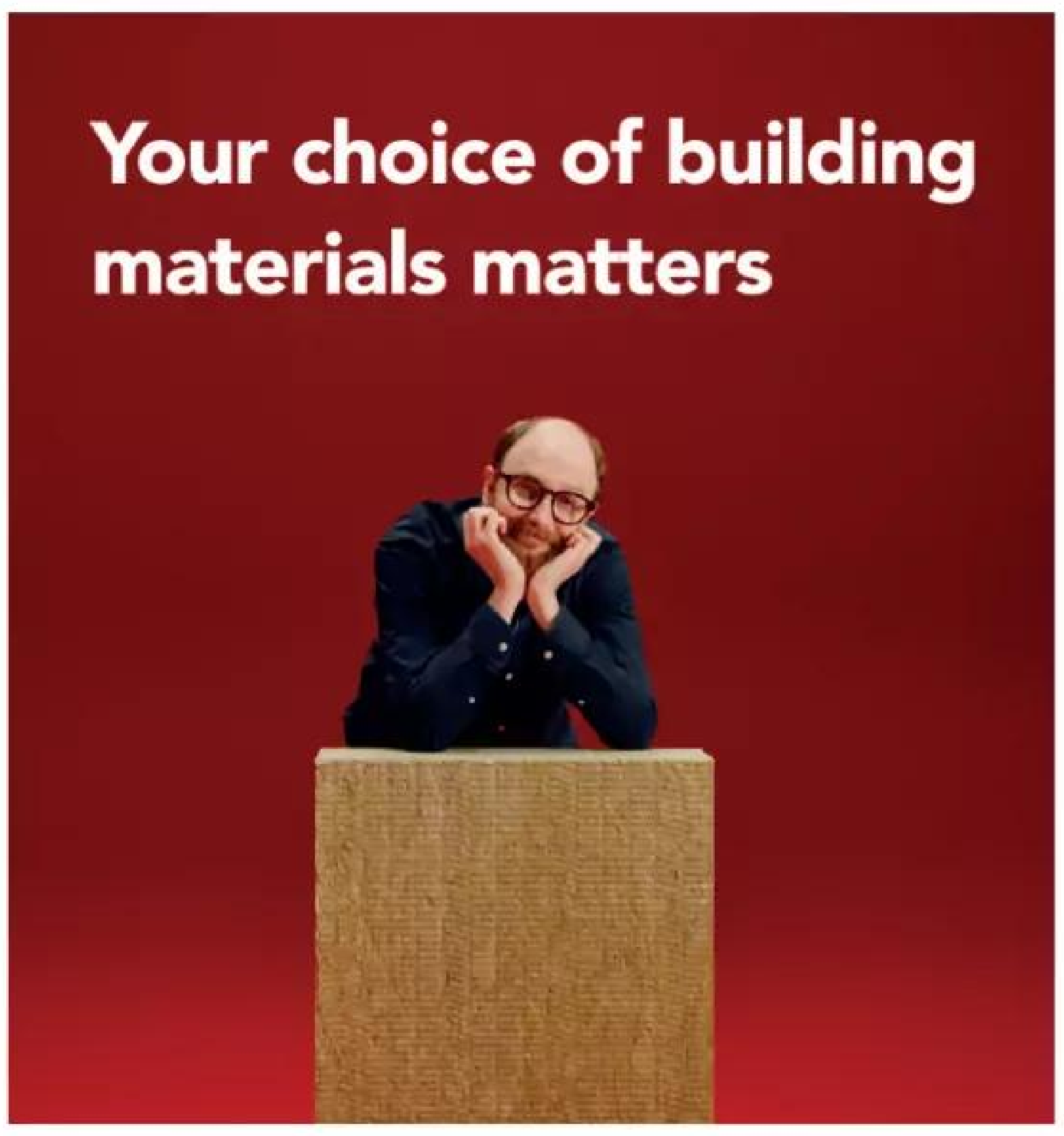
ROCKWOOL

Established
1937

Areas Served
Nationwide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ROCKWOOL Limited is part of the ROCKWOOL Group. Established in the UK in 1979, we have one factory in Bridgend, South Wales, and employ over 500 people across the UK and Ireland. We are the local organisation offering a full range of stone wool insulation products. At the ROCKWOOL Group, we are committed to enriching the lives of everyone who comes into contact with our solutions. Our expertise is perfectly suited to tackle many of today's biggest sustainability and development challenges, from energy consumption and noise pollution to fire resilience, water scarcity and flooding. Our range of products reflects the diversity of the world's needs, supporting our stakeholders in reducing their own carbon footprint along the way.

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Screwshop

Established
1985

UK projects per annum
20,000+

Areas Served
Nationwide

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the unique loft conversion & flooring system

Established
2005

UK projects per annum
200

Areas Served
UK Mainland

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Cupa Pizarras

Established
1996 (UK)

UK projects per annum
15,000

Areas Served
Nationwide

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Established
1953

Areas Served
Nationwide

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Millworks

Established
2016

UK projects per annum
500+

Areas Served
Nationwide

MILL WORKS

Millworks is a specialist UK manufacturer of durable timber products for exterior cladding, interior ceiling and wall cladding, decking, and fencing. All production is carried out in-house, allowing us to maintain high quality standards and offer flexibility for a wide range of project requirements. Advanced machinery handles profiling, coatings and finishes, fire treatments, and installation systems, resulting in high-performing, ready-to-install timber products. We're committed to sustainability and follow a responsible and traceable purchasing policy using trusted FSC or PEFC certified partners. Our team is on hand to support you with any design, specification, or technical queries throughout your project.

Tel: **01223 967733** Web: **millworks.co.uk**

Russwood

RUSSWOOD

Established
1990

UK projects per annum
1000+

Areas Served
Nationwide

Russwood are timber specialists, supplying sustainable, high-quality flooring, cladding, decking, interior cladding, and fixings. With over 30 years experience, we pride ourselves on our reputation for quality products and our excellent technical expertise.

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Rainclear Systems

Established
2004

UK projects per annum
20,000

Areas Served
Nationwide

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Superior aesthetics: Stunning metal finishes and aesthetics to compliment all builds.

Maximise lifetime cost efficiency: Whether 1 project or 100, choosing metal avoids additional cost and protects long term budgets with fewer repairs and maintenance.

Tel: **0800 644 44 26** Web: **www.rainclear.co.uk**

Vastern Timber

Established
1904

Areas Served
Nationwide

Vastern Timber®

Discover the ideal mix of quality and versatility at Vastern Timber, your trusted source for locally-grown timber cladding. Choose from a wide range including larch, cedar, and Brimstone - perfect for both trade professionals and DIY projects. Whether your style is contemporary or rustic, our cladding enhances any design. With years of experience, we make selecting the right timber simple. Thousands rely on our expert team to help them stay on budget while achieving beautiful, functional results. Let us guide you to the perfect cladding solution for your next project.

Tel: **01793 853281** Web: **www.vastern.co.uk**

PAUL Heat Recovery

Established
2007

UK projects per annum
100+

Areas Served
England, Scotland, Wales

We design and supply quiet and efficient domestic ventilation for your health and wellbeing, like no other company. In many people's opinion PAUL Heat Recovery has the finest range of MVHR and heat pump combinations.

Tel: **01383 221255**
Web: **www.paulheatrecovery.co.uk**

Total Home Environment

Established
1998

UK projects per annum
500+

Areas Served
Nationwide

As seen in four homes on Grand Designs: The Street, filmed at Graven Hill. We design, supply and install heat recovery ventilation, heat pump ventilation, compact service units and central vacuum systems. For over 25 years we have ensured customers' homes are energy efficient, with fresh filtered air. The HPV Series was chosen for Build It's Education House at Graven Hill too! We complete room-by-room heat loss appraisals to understand the best heating and ventilation solutions for you and your home.

Tel: **03452 600123** Web: **www.totalhome.co.uk**

The Unico System

Established
1985

UK projects per annum
50+

Areas Served
Nationwide

The Unico System is a 3-in-1 HVAC solution that can provide you with Heating, Cooling, Ventilation, Air Filtration, Humidity Control and Air disinfection. Unico is a central air distribution system made up of small ducts that mix and deliver conditioned air into a living space. The modular system enhances indoor air quality by integrating and combining ventilation, fresh air, air filters and UV technology. The benefits of Unico: Draft Free, even temperatures. Whisper Quiet. Energy Efficient. Warm in Winter. Cool in Summer. Always beautifully fresh, filtered air.

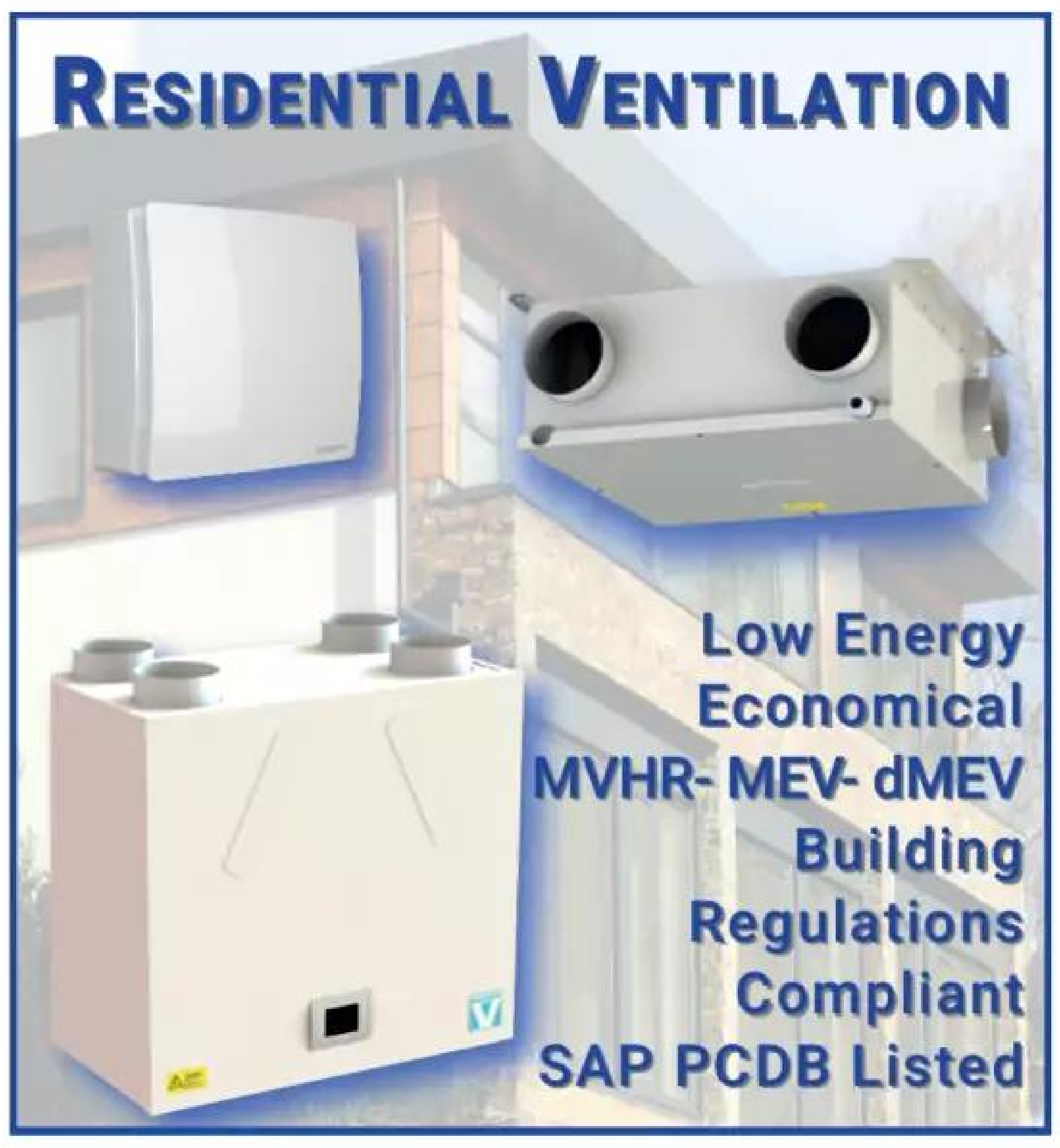
Tel: **01384 422094** Web: **www.unicosystem.co.uk**

Vectaire

Established
1987

UK projects per annum
250+

Areas Served
Nationwide



Vectaire's design team ensures ventilation systems giving efficient and economic ventilation for private and social housing; apartments; student accommodation; care homes; hotels - anywhere good indoor air quality is required. Vectaire supplies all accessories, and organises installation, commissioning and maintenance of products. Residential ventilation comprises MVHRs, MEVs, DMEVs and more. Vertical and horizontal MVHRs are commissioned by integral or remote LCD. Two sizes of MEVs offer a wide range of ventilation, and DMEVs come in several sizes - axial or centrifugal. WHEREVER ventilation is required, cooling in summer and saving heat and energy in winter, Vectaire has low energy, quiet units to do the right job.

Tel: **01494 522333** Web: **www.vectaire.co.uk**

Claim It Back VAT Refunds

Established
2017

UK projects per annum
200+

Areas Served
Nationwide

Specialist in VAT reclaims for self builders.
Whatever stage your build is at we can begin the process of your reclaim leaving you free to concentrate on your dream home.
▪ Fixed Fee ▪ Complete Service ▪ New Build/Conversions

Tel: **01427 839333** Web: **www.vatclaim.co.uk**

Build It Estimating Service

Established
2016

Areas Served
Nationwide

Brought to you by Build It Magazine, The Build It Estimating Service is here to help you understand the costs associated with your specific scheme before you embark on your journey. It's a speedy, accurate and affordable route to finding out exactly how much your proposed project will cost – whether it's an extension, conversion, renovation or new build. Simply send us your plans and we'll give you a fully detailed cost breakdown including live material costs, estimated labour costs, cash flow forecast and build schedule.

Web: **www.buildit.co.uk/estimate**

Build It's Virtual Self Build Training

Established
2021

Areas Served
Nationwide

Build It's Self Build Virtual Training will give you the detailed know-how to successfully realise your dream home on time and on budget. Our interactive series of courses are presented by Build It magazine's expert contributors and editorial team. Each course is designed to give you the key nuggets of knowledge you need – in a friendly, succinct and accessible package – and all from the convenience of your own home. From finding land to completing your project on budget, there's a course for each stage of the self build process.

Web: **www.buildit.co.uk/training**

Protek Group

Established
2015

UK projects per annum
2300

Areas Served
Nationwide

Whether you are building, extending or renovating a home, a loss can literally stop you in your tracks. Theft, storm damage, break-ins or an injury on site all involve delays and additional costs. Don't just assume your builder's insurance will protect you, because they are likely to only have Public Liability. The Defective Premises Act has consequences for anyone building or renovating. You could be liable for 15 years regarding works you carried out on a property you have sold. This is why site insurance, and a 10-year structural warranty are important.

Tel: **0333 456 8030** Web: **www.protekselfbuild.co.uk**

Quiet Mark Certification

Established
2011

UK projects per annum
5000+

Areas Served
Nationwide

Quiet Mark is a global leader in the fight to reduce noise pollution. As the trusted only third party acoustic certification in the world we lab-test to find the very quietest home appliances, technology, building and commercial products to help you easily find the best noise-reduction solutions for quieter, calmer living spaces. We work closely with professionals in architecture, design and construction to ensure the best acoustic design is being considered in our built environment – from new homes to office spaces. We are the trading arm of the Noise Abatement Society, the UK-registered charity established in 1959, serving public health, finding practical ways to reduce the impact of noise on our health and wellbeing.

Tel: **01273 823850** Web: **www.quietmark.com**

Self-Build Zone

Established
2003

UK projects per annum
1,000's

Areas Served
Nationwide

Self-Build Zone is the market leading provider for self-build insurance in the UK. Our products include Site Insurance, Structural Warranties, Site Surveys and more. Site Insurance can cover you from the moment you purchase a plot right up to completion including existing structures. During your build we can arrange your Site Surveys, technical audits and other surveys to save you time. Our Structural Warranties are approved but the majority of lenders in the UK and backed by a A-rated insurer.

Tel: **0345 230 9874** Web: **www.selfbuildzone.com**

Steele-Perkins

Established
2000

UK projects per annum
<10

Areas Served
England: South East & London
Homebuilding Essentials is Nationwide

Steele-Perkins offers Project Management, Pre-Construction Services, Cost Consultancy for self-builders and renovators. From concept to completion, Chartered Construction Manager Oliver Steele-Perkins (MCIOB) provides expert guidance to protect your time, budget, and peace of mind. We specialise in new builds, knock-down rebuilds, complex renovations, and major extensions. Prefer to self-manage your project? Our digital platform, Homebuilding Essentials, equips you with the tools, templates, resources, and support to build with confidence. Contact Oliver at osp@steele-perkins.com

Tel: **07976 339339** Web: **www.steele-perkins.com**

The National Self Build & Renovation Centre

Established
2007

Areas Served
Nationwide

The National Self Build & Renovation Centre is the UK's only permanent venue for independent homebuilding advice & support. Established in 2007, and owned by our employees since 2014, we have helped over a quarter of a million visitors build their own dream home or extend and improve their existing property. In 2025, we proudly achieved Good Business Charter Accreditation and gained B Corporation Certification. We are home to over 200 permanent exhibitors, covering every aspect of a building project, from foundations to flooring, walls to windows, roofing to renewables and much more. We're open 6 days a week with a fully packed timetable of events – visit our website for more information!

Tel: **0345 223 4455** Web: **www.nsbrc.co.uk**

Caravantastic

Established
1991

UK projects per annum
300

Areas Served
Nationwide

Caravantastic supplies static caravans & lodges for temporary accommodation or welfare facilities. Living on-site whilst building/renovating your project has advantages such as reduced accommodation costs, on-site security, and being able to keep an eye on progress. We offer a guaranteed buy back price after the build has finished.

Tel: **01392 757879** Web: **www.caravantastic.com**

Worcestershire Caravan Sales

Established
1983

UK projects per annum
150

Areas Served
Nationwide

Worcestershire Caravan Sales refurbish pre-owned static caravans for use as temporary accommodation. We have a large selection to suit every budget.

Living onsite is ideal for security and managing your project. We have our own transport.

Tel: **01299 878872**
Web: **www.worcestershirecaravansales.com**

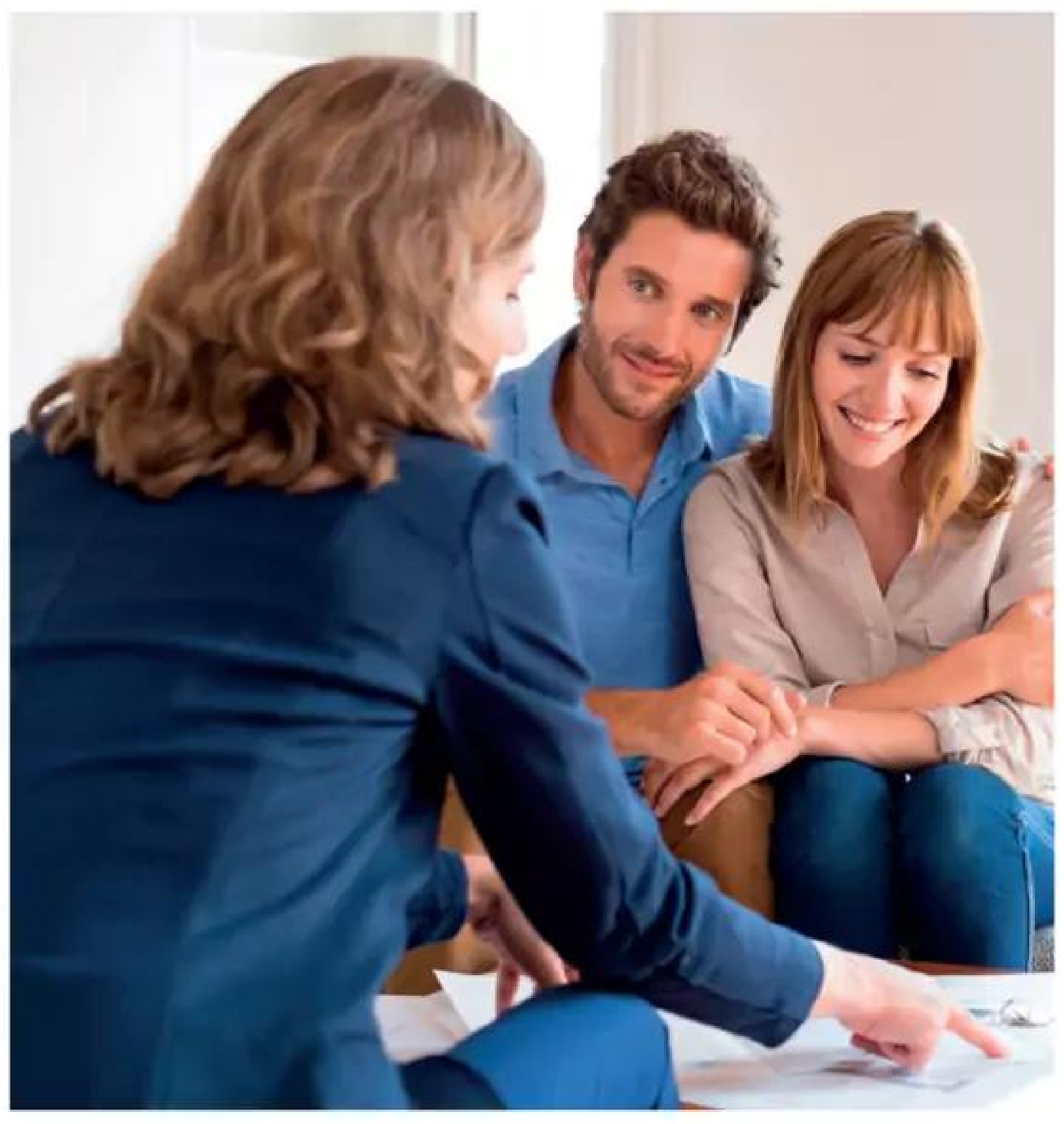
MORTGAGES

BuildStore

Established
2000

UK projects per annum
1,000+

Areas Served
England, Wales, Scotland



Since 2000, BuildStore has led the way in specialist mortgages and insurance for self build, renovation, and conversion projects across the UK. With over 25 years' experience, our expert team and innovative approach have helped finance more than 30,000 homes. We offer the widest range of tailored products and now lead the growing custom build mortgage market. With over 70 exclusive mortgages available, BuildStore is the trusted finance partner to guide you through your homebuilding journey from concept to completion. BuildStore offers flexibility, choice, and unrivalled expertise. Whether you're building your dream home from the ground up or breathing new life into an existing property.

Tel: **0345 223 4888** Web: **www.buildstore.co.uk**

Ecology Building Society

Established
1981

UK projects per annum
250+

Areas Served
Nationwide

Ecology Building Society is an award-winning specialist in self-build mortgages. We specialise in loans for people creating energy efficient, sustainable homes. This includes builds from scratch, conversions of non-residential buildings or renovation of existing properties to improve energy ratings. We welcome modular off-site builds and non-standard construction methods and materials, including timber frame and clad, straw bale, cob, and builds with renewables. With 40 years' experience and over 4,500 projects under our belt, we often take on projects others can't, using a case-by-case approach. Customers can also benefit from a mortgage rate discount of up to 1.50%, depending on their properties EPC rating (T&Cs apply)

Tel: **01535 650770** Web: **www.ecology.co.uk**

Suffolk Building Society

Established
1849

Areas Served
England & Wales

We specialise in self build mortgages, offering flexible stage releases, plus lower interest rates for energy-efficient builds. We underwrite manually so a real person will assess your application and support you at each phase of your self build or renovation.

Tel: **0330 123 0723**
Web: **www.suffolkbuildingsociety.co.uk**

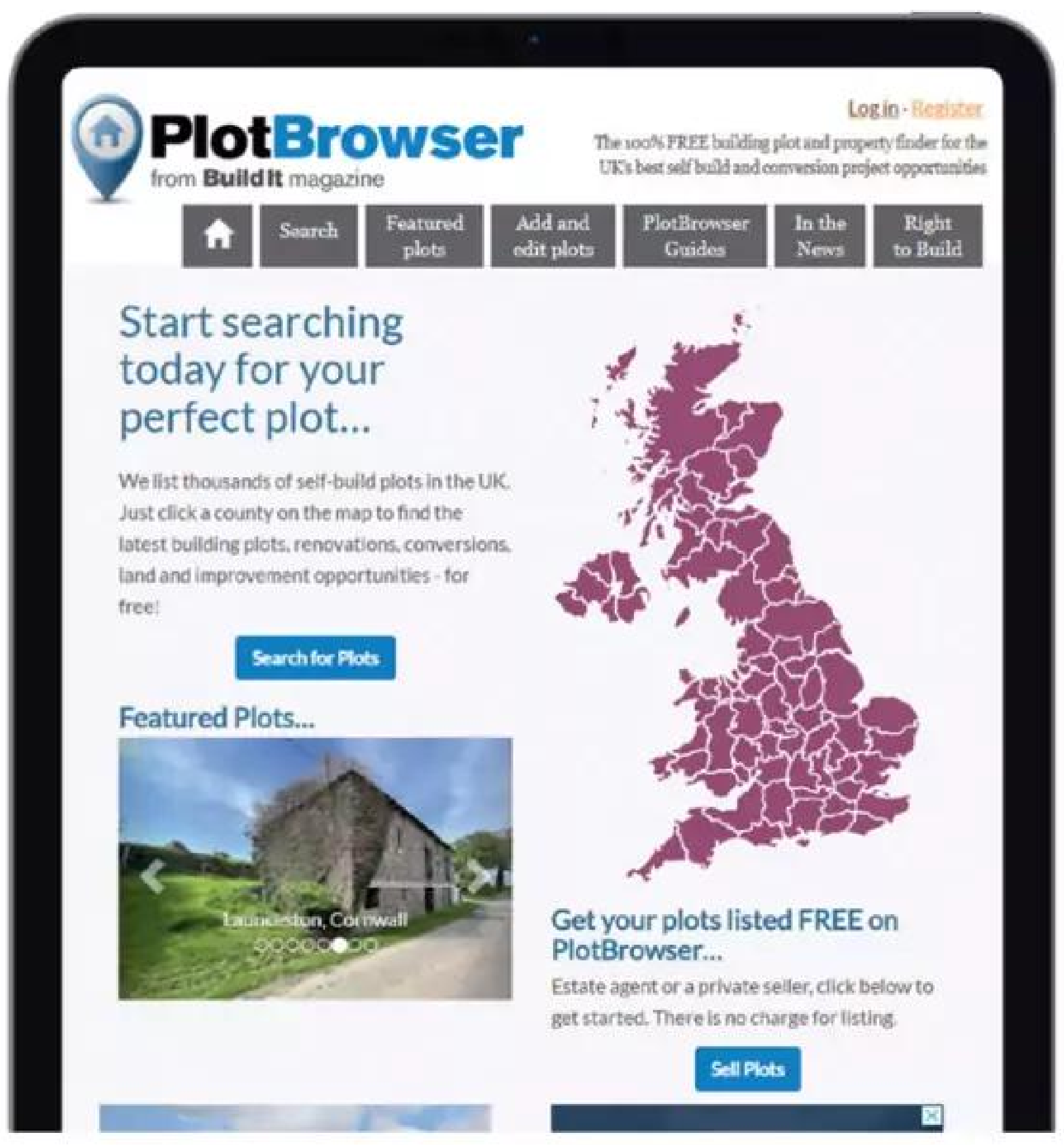
PLOT FINDING

PlotBrowser.com

Established
2003

UK projects per annum
2,000+ live plots

Areas Served
Nationwide



The 100% FREE building plot and property finder for the UK's best self build and conversion project opportunities

Start searching today for your perfect plot...

We list thousands of self-build plots in the UK. Just click a county on the map to find the latest building plots, renovations, conversions, land and improvement opportunities - for free!

Get your plots listed FREE on PlotBrowser...

Estate agent or a private seller, click below to get started. There is no charge for listing.

Start searching today for your perfect self build plot. Visit www.plotbrowser.com - the 100% FREE land & property finder for the best self build and conversion project opportunities across the UK. All entries are carefully researched to ensure they are all genuine self build plots or major renovation/conversion projects, saving you huge amounts of time so you don't miss exciting opportunities. Register for a free account for full access to images and important planning information on thousands of UK plots. Search by county, postcode, price, plot type and date added.

Web: **www.plotbrowser.com**

SMART HOMES

AMPIO

Established
1997

UK projects per annum
100+

Areas Served
Nationwide

12:00
21-03
Arm House
Lights On/Off
Blinds Open/Close
21.5 °C
Temperature
Main Screen

Smarter Homes, Made Simple. Ampio UK brings professional-grade smart home control to the self-build market—without the complexity. Our modular systems give you seamless control of lighting, heating, blinds, security, energy, and audio from elegant wall panels or a mobile app. Whether you're designing your dream home or renovating with future-proofing in mind, Ampio helps you build in comfort, efficiency, and convenience from day one. Fully customisable and installer-supported, it's smart technology that fits your vision. For a free consultation please contact us.

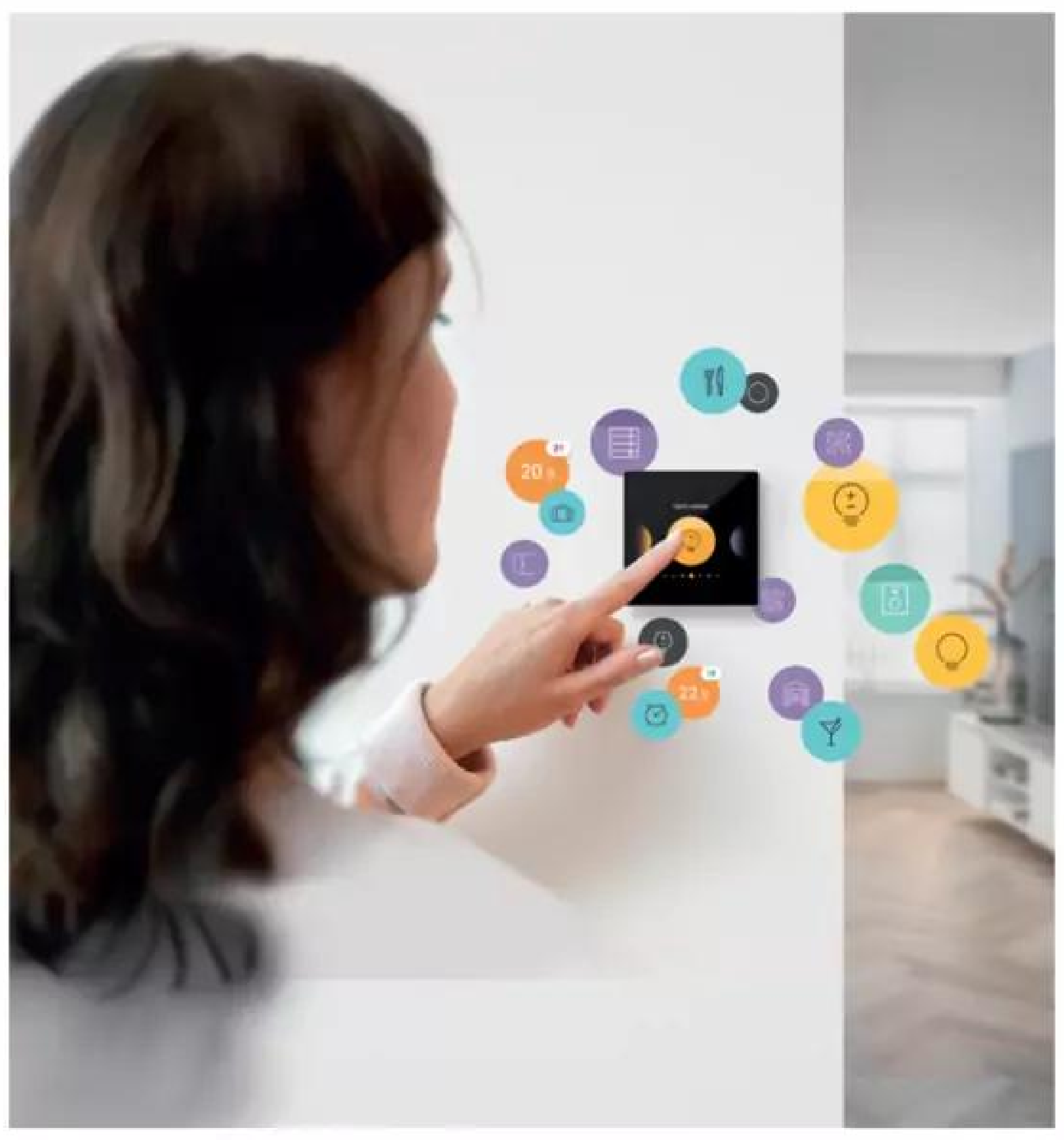
Tel: **01474 700343** Web: **www.ampio.uk**

Moss Technical Services

Established
2001

UK projects per annum
100

Areas Served
Nationwide



Niko Home Control is the modern electrical installation for the home that integrates lighting, heating, ventilation, shading and music control etc. By controlling these elements within the same Control Eco-System, gives many benefits for you and your electrical installation. Benefits like energy saving, future proofing, flexibility, safety and security benefits, plus many including adding value to your home.The key to any installation is an early design so that the installation specification and your budget for this balance and that you have time to value engineer your design according to budget. Contact us for more information.

Tel: **01656 746766** Web: **www.homecontrol.uk.com**

Theben

Established
1921

UK projects per annum
50+

Areas Served
Nationwide

Designing your dream home? The LUXORliving smart home system makes intelligent living simple. Perfect for self-builders, it offers easy control of lighting, heating, shading and more, all from a sleek app or stylish wall switches. Whether you're planning a retrofit or a new build, LUXORliving is flexible, affordable and built to last. With no cloud dependency and a clear focus on security and reliability, it gives you full control, without complexity. Start with the essentials and expand as your needs grow. Smart living, made easy.

Tel: **01237 751546** Web: **www.luxorliving.co.uk**

STAIRCASES

Bisca Staircases & Balustrades

Established
1995

UK projects per annum
50+

Areas Served
Nationwide

Bisca is a world-leading staircase specialist. It is our passion to offer custom-made staircase solutions which enhance the unique characteristics of a property and transform the living space they belong to. Having designed, crafted and installed beautiful staircases for both renovation and new build projects, each commission begins by getting to know our client and understanding what perfection looks like in their eyes. Boundaries and limitations do not exist - instead we apply an intricate level of detail to scope a project and realise your dream. Over 30 years, our team has grown to deliver a full-service solution, presenting boundless options in terms of material, layout and style. With Bisca, anything is possible.

Tel: **01439 771702** Web: **www.bisca.co.uk**

Brilliant Lighting

Established
2004

UK projects per annum
50+

Areas Served
Nationwide

Light is intangible, but probably has the greatest impact on the built environment after the architecture. Lighting design is a critical factor in any building project. Brilliant Lighting are award-winning lighting designers. We're an independent, multi-disciplinary design team. We work collaboratively to create and deliver inspirational lighting schemes and lighting control systems for high end homes, hospitality, listed buildings & heritage projects and fine art collections. We have a passion for enhancing and transforming wonderful spaces with light. Brilliant Lighting works on projects across the UK.

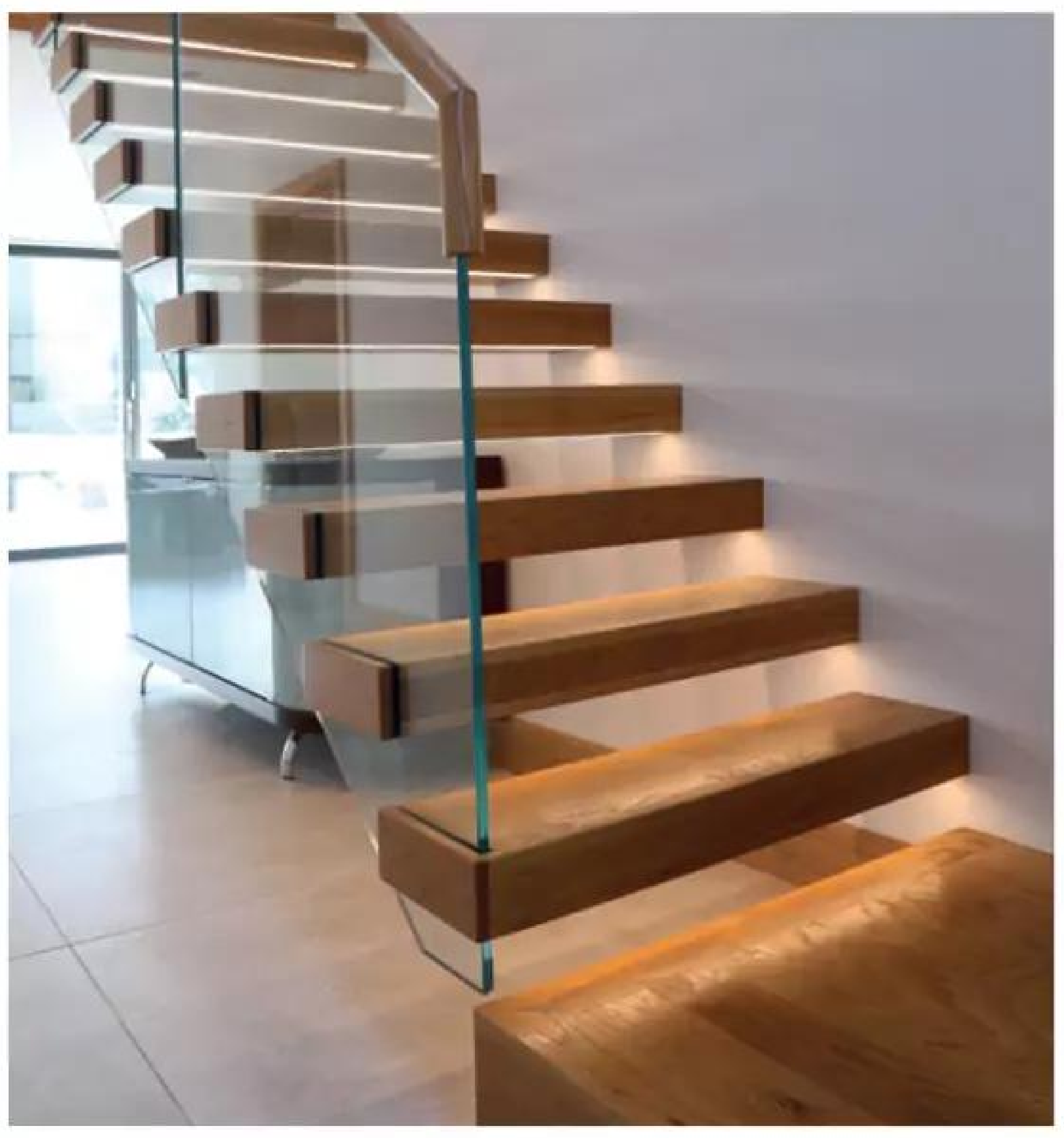
Tel: **01845 525664** Web: **www.brilliantlighting.co.uk**

David Smith St Ives

Established
1960

UK projects per annum
150

Areas Served
Nationwide



David Smith St Ives design and manufacture a full range of bespoke structural and architectural timber products, including Stairs, Doors, Joists and Trusses. We are one of the UK's leading manufacturers of high-performance architectural fire doors & fire door sets for commercial and high-class residential applications. We've been carefully crafting bespoke timber staircases since 1960, specialising in self-build and luxury development projects. With a choice of engineered I-Joists or Posi-Joist metal web joists, we provide the best roofing and flooring solutions for your development, and we design, manufacture and deliver roof trusses for large and small developments nationwide.

Tel: **01480 309900** Web: **www.davidsmith.co.uk**

Edge Bespoke

Established
2019

UK projects per annum
10+

Areas Served
Nationwide

Here at Edge Bespoke, our compact family run business, we design, manufacture and install the highest quality contemporary staircases for the self build and renovation market. We work with our clients designing their one off bespoke dream staircase, using only the highest quality materials and modern manufacturing processes. Our metal bespoke staircases can have a mix of powder-coated steel, timber joinery, glass or steel balustrades, and now micro-cement finishes on the treads as our feature image. Each one of our staircases is handcrafted here in the UK, in our Cambridgeshire workshop.

Tel: **01480 583200** Web: **www.edgebespoke.co.uk**

Gartec Lifts

Established
1994

UK projects per annum
500+

Areas Served
Nationwide

With 30 years of expertise, we make every step—from inquiry to installation—seamless. Our reputation in platform lifts is built on transparency, reliability, and teamwork. As market leaders, we exceed expectations with sustainable solutions and strong relationships.

Tel: **01296 397100** Web: **www.gartec.com**

One Tile Ceramic

onetile.co.uk
Italian porcelain stoneware and ceramic tiles

Established
2020

Areas Served
Worldwide

One Tile supplies the best Italian porcelain stoneware and ceramic tiles at the best price on the market. We offer expert advice, exclusive offers/discounts and a large distribution capacity. To explore the quality and choices available, visit our Bristol showroom.

Tel: **0800 061 4809** Web: **www.onetile.co.uk**

Moduu Living

Established
2000

UK projects per annum
50+

Areas Served
Nationwide

MODUU Living—Designed for Your Vision. Elegant. Modular. Made to be Lived In. MODUU Living provides a seamless solution for homes and interiors. Crafted with precision and tailored to your unique space, our cabinetry is designed to fit effortlessly into every room in your home—from kitchens and bedrooms to boot rooms, utility spaces, and bespoke media walls. Our modular system allows for fully customisable configurations, ensuring a perfect fit for your home. Whether designing a kitchen, a refined library, or a functional utility space, MODUU gives you complete control to customise and expand your interior as your needs evolve. It's built to grow with you, combining luxury and flexibility in a way that lasts.

Tel: **01462 262044** Web: **www.moduuliving.co.uk**

Showerscape

Established
2015

UK projects per annum
200

Areas Served
Nationwide (UK mainland)

Our bespoke printed shower panels offer creative freedom for a unique focal point within any bathroom. We offer a range of designs featuring stunning photographic and art-based themes, as well as a bespoke design service so you can feature your own choice of imagery. Our easy-clean, robust and watertight composite panels are among the largest panels available at up to 2x3m, offering fewer joins and minimal visual interruption. Our panels are quick to install and guaranteed for 20 years – a creative, practical alternative to tiles.

Tel: **01650 511194** Web: **www.showerscape.co.uk**

The Skirting Board Shop

Established
2013

UK projects per annum
1000+

Areas Served
Nationwide

At The Skirting Board Shop we specialise in a huge range of skirting boards, architraves, interior window sills, panel kits and accessories. These are all available on our website in a wide range of styles and finishes, easy to order and delivered direct to your door.

Tel: **0800 048 0786**
Web: **www.theskirtingboardshop.co.uk**

Charlton & Jenrick

Established
1986

Areas Served
England, Ireland, Scotland, Wales

Charlton & Jenrick is a leading UK manufacturer of premium wood, gas and electric fires and stoves. Established in 1986, we design and engineer all products in-house, combining innovation with expert craftsmanship. Our appliances meet or exceed Ecodesign standards and are available through a network of approved retailers. We're committed to energy efficiency and environmentally responsible secondary heating solutions. All our multi-fuel and wood-burning stoves are rated clearSkies Level 4, with most achieving Level 5. Trusted by installers and showrooms nationwide, Charlton & Jenrick delivers stylish, reliable heating for modern and traditional homes.

Tel: **01952 200444** Web: **www.charltonandjenrick.co.uk**

DRU Fires

Established
1754

UK projects per annum
100+

Areas Served
Nationwide

i am dru since 1754

DRU Fires, founded in 1754, is one of Europe's leading fireplace manufacturers. We produce gas fires, electric fires, wood stoves and bioethanol fires that combine contemporary design with the latest fireplace technology. DRU gas and electric fires and Dik Geurts wood stoves are popular choices for self-build and refurbishment projects. There is a vast selection of models and designs for modern and traditional settings and they comply with all international emissions and efficiency standards, providing sustainable sources of secondary heating. DRU is represented by over 200 specialist fireplace dealers throughout Great Britain. To find your nearest dealer visit our website.

Tel: **0161 793 8700** Web: **www.drufire.com**

Eurostove

Established
2004

UK projects per annum
1000+

Areas Served
Nationwide

Eurostove

Eurostove Ltd is a trusted supplier to the UK building and architectural sectors, offering an extensive portfolio of premium stoves and fires ideal for self-builds, renovations and bespoke interiors. Representing renowned European brands such as Westfire, Varde, Hergom, Nestor Martin, F2, Ilektro, and Iconic, alongside our own Mendip Stoves range, we deliver high-performance heating appliances designed for efficiency, style and longevity. From contemporary wood burners to sleek electric fires, our products meet the latest EcoDesign standards—making them ideal for low-carbon and future-ready homes. Discover more at eurostove.co.uk.

Tel: **01934 750500** Web: **www.eurostove.co.uk**

Stovax & Gazco

Established
1981

UK projects per annum
50,000

Areas Served
Nationwide

STOVAX GAZCO

The Stovax Heating Group, an award-winning manufacturer including luxury brand Onyx, excels in producing premium stoves, fires, and fireplaces across wood, gas and electric fuel types, offering efficient heating solutions for every home. Delivering the absolute pinnacle of British engineering, they ensure that a commitment to excellence and sustainability drives the design of every product. Whether you're in the market for a modern log burner, a sleek gas fireplace, or an electric fire perfectly suited for a media wall setup, find out more at their websites: stovax.com | onyxfires.com.

Web: **www.stovax.com**

Advanced Housing Systems

Established
2008

UK projects per annum
<10

Areas Served
Nationwide & Europe

Award-winning, long established, bespoke sub and superstructure systems for self builders. As seen on Grand Designs, BBC, etc. World-class design, engineering, manufacture and installation services; blending building engineering physics with craftsmanship and traditional materials. We tailor our systems to budget or performance requirements, but are also pioneers of the UK's first Passivhaus certified foundation, basement, and ICF system. Project management, thermal bridge design/modelling and other services available. The price and timing of all our projects are agreed in advance. Above all - enjoy your build! Made in Devon, built worldwide.

Tel: **01392 925674**
Web: **www.advancedhousingsystems.co.uk**

Baufritz (UK)

Established
2006

UK projects per annum
10

Areas Served
Nationwide

BAUFRITZ
WIR BAUEN GESUNDHEIT

Baufritz has been building timber framed houses in Germany for more than a century. In the UK, the family firm is known for its eco homes of exceptional quality which combine an unrivalled level of comfort and luxury with an abundance of natural materials. Based near Cambridge, Baufritz is committed to building homes that minimise adverse effects on both the environment and the well-being of those who occupy them. Their approach is to design and construct houses which meet clients' needs and no two Baufritz houses are the same.

Tel: **01223 235 632** Web: **www.baufritz.co.uk**

Beco Products

Established
1992

UK projects per annum
40-50

Areas Served
Nationwide

BecoWallform
BUILDING FOR THE FUTURE

BecoWallform Insulating Concrete Formwork (ICF) is a fast, cost effective form of construction. Providing low, zero or passive energy performance standards, Wallform is an integrated building system for any architectural style and all types of cladding, economic to build and run, providing the ideal comfort zone for all. The superior strength of concrete, fully protected by a complete envelope of insulation, will outlast, outperform and out-sustain the alternatives. UK Manufactured, Wallform is practical to build for self-builders, with training for those who have not used the system before.

Tel: **01652 653844** Web: **www.becowallform.co.uk**

Broadaxe Timber Frames

Established
2019

UK projects per annum
10+

Areas Served
Nationwide

BROADAXE
TIMBER FRAMES

High quality, high performing & sustainable bespoke timber frame homes. Offering tailored timber frame packages to the self-builder, delivering & erecting nationwide. Broadaxe Timber Frames building system has been developed to produce sustainable, low-energy homes to passive house standards using a twin wall Larsen truss panel. Panels are constructed offsite in the workshop by carpenters and joiners and then installed on your plot within a few days. Offsite manufacture in a quality-controlled environment reduces any delays caused by weather and reduces waste. Offering a range of flexible building packages to suit all self-build projects.

Tel: **01544 260819**
Web: **www.broadaxetimberframes.co.uk**

Carpenter Oak

Established
1987

UK projects per annum
50+

Areas Served
Nationwide

CARPENTER OAK

Carpenter Oak has been building bespoke timber frames nationwide for self-builders for almost 40 years. We're passionate about helping our customers, and with our handcraft approach to designing and building oak frames, we provide a truly bespoke service and a trademark quality of build. With care, quality and craftsmanship in our DNA we've helped our customers build a huge variety of homes, extensions, outbuildings and other spaces. Our fabrication methods are rooted in traditional techniques, which are applied to modern house building. We specialise in structural timber frames, offering frame design, fabrication and installation services. We also offer a full architectural service, glazing and roof boarding services.

Tel: **01803 732900** Web: **www.carpenteroak.com**

Crendon Timber Engineering

Established
1967

UK projects per annum
15,000

Areas Served
Nationwide

For over 55 years Crendon have been at the forefront of the design and manufacture of engineered timber products and we are delighted to have won the TTJ Structural Timber Systems Supplier of the Year award, five times in the last six years. We are constantly working with our customers to create new levels of on-site efficiency and exceptional service, all with innovative designs from our team of professional experienced designers, so that our products help builders and developers build better new homes. Our manufacturing facilities are all CE certified, and we are proud of now achieving a Net Zero Carbon status across our business.

Tel: **01844 201020** Web: **www.crendon.co.uk**

Danwood UK

Established
1995

UK projects per annum
50+

Areas Served
Nationwide

Dan-Wood timber-frame homes offer exceptional quality, energy-efficiency and value. Around 90 house styles can be modified to suit your lifestyle, with every component precision-engineered to your exact specifications. The Dan-Wood turnkey fixed-price option includes managing the structural elements of the house, including heating and ventilation systems, stairs, sanitaryware, doors, flooring, plumbing and interior decoration. Dan-Wood's superb thermally efficient construction and range of energy-saving heating and hot water installations are all included in the standard turnkey price. All with a 12-month fixed-price guarantee and a 20-year structural guarantee.

Tel: **01896 752271** Web: **www.dan-wood.co.uk**

Fleming Homes

Established
1986

UK projects per annum
50+

Areas Served
Nationwide

At Fleming Homes, we give you the freedom to build your self-build home, your way. Whether you're still dreaming, already have land, or are deep in planning, we're here with the support, design expertise, and construction knowledge to bring your vision to life. We specialise in crafting bespoke timber frame kits and packages, empowering self-builders to design homes as unique as the people who live in them. Each frame is precision-engineered and tailored to your needs, allowing you to build with confidence. From planning permission to timber frame erection - it's all in-house. It's all for you. Let's build something extraordinary together!

Tel: **01361 883785** Web: **www.fleminghomes.co.uk**

Glosford SIPS

Established
2009

UK projects per annum
150

Areas Served
Nationwide

Glosford SIPs is a market leading, UK Structural Insulated Panels specialist, offering a complete solution for your structural insulated building envelope. Using renowned Kingspan TEK panels, our 'Fabric First' solution guarantees low running costs for your new home. Our facilities include a fully equipped factory with state of the art CNC manufacturing equipment, ensuring reduced processing times and a predictable build programme with all products machined and supplied to the highest quality. We have our own CAD designers and trained SIPs installers along with qualified project teams conversant with all current building regulations and Health & Safety legislation.

Tel: **01432 842999** Web: **www.glosfordsips.co.uk**

Harmony Timber Solutions UK

Established
2011

UK projects per annum
250+

Areas Served
Nationwide

Harmony Timber has excelled in timber engineered solutions for over a decade, with a solid reputation built on experience and innovation. We have built long lasting partnerships with developers, self-builders, and specialist builders in Southern and Central England. Our team have in-depth knowledge of timber engineering and offsite construction, to assist and guide on an array of projects, from forever homes to commercial structures. Our ability to adapt to challenging projects and our customer first attitude makes us the ideal choice. We are committed to delivering a friendly service and high-quality products.

Tel: **01227 712322/01227 209087**
Web: **www.harmonytimber.co.uk**

JML SIPs

Established
2003

UK projects per annum
25+

Areas Served
Nationwide

JML SIPs is a family-owned company with nearly twenty years of experience delivering low-energy homes across the UK. Specialising in Structural Insulated Panels (SIPs), we offer bespoke SIP kits and a range of pre-designed house styles. Our expert team provides innovative, sustainable, and energy-efficient building solutions, focusing on quality and excellent customer service. Over the years, we've built an enviable reputation as SIPs specialist and we continue to expand our range of services to meet the needs of clients nationwide.

Tel: **01764 663271** Web: **www.jmlsips.co.uk**

Kirkwood timber Frame

Established
2001

UK projects per annum
30+

Areas Served
Scotland

Smart | Efficient | Sustainable

Building your dream. For 40 years, we've helped transform self-builders' visions into reality. With a strong focus on sustainability, quality, and customer communication, we provide flexibility in timber frame design, catering to various architectural styles, personal preferences, and budgets. Our skilled team offers guidance throughout the process, ensuring a seamless journey from design to completion. Our collaborative approach and prioritising our customers' vision means we can offer solutions and services at any point of your build. Each project is handled with diligence and care. It's not just houses...it's YOUR home.

Tel: **01330 833595**
Web: **www.kirkwoodtimberframe.co.uk**

Meisterstueck-HAUS

Established
1903

UK projects per annum
5

Areas Served
England and Wales

Meisterstueck-HAUS build highly insulated and air-tight eco-houses using high quality natural materials from sustainable sources. Combined with triple glazed windows as standard and the latest eco-technologies environmental and living costs are minimised. Meisterstueck-HAUS offers in-house designs or bespoke architect designed houses using both closed panel and post and beam construction methods. Clients can choose from a shell house with a fixed price to the full package with our UK partners. As members of German offsite manufacturers associations, Meisterstueck-HAUS clients can expect the highest technical standards and quality control.

Tel: **01235 227270** Web: **www.meisterstueck.com**

Lowfield Timber Frames

Established
2000

UK projects per annum
50

Areas Served
Nationwide

We are a highly adaptable business with a strong focus on Sustainability, Low Embodied Carbon and delivering Net Zero. We are at the forefront of Passivhaus design, and work with you to achieve the best outcome for your build.

Tel: **01743 891922**
Web: **www.lowfieldtimberframes.co.uk**

Oxford Homes

Established
2002

UK projects per annum
<10

Areas Served
England: South West & South East

Founded in 2002, we are Oxfordshire's leading family-owned house-building company. From securing the perfect site to crafting your bespoke dream home, we're with you every step. Let us bring your vision to life with expert guidance and quality craftsmanship.

Tel: **01865 689100** Web: **www.oxfordhomes.org**

Oakwrights

Established
1999

UK projects per annum
250+

Areas Served
Nationwide

For 25 years, award-winning oak frame supplier, Oakwrights, has been designing and constructing oak frame homes, extensions and outbuildings. Here at Oakwrights, we understand that building a home is a once in a lifetime experience. So, whether you envisage a country cottage or a contemporary design, we're here to help you turn your dream into reality. From transforming your wish list into a planning approved design, to carefully constructing your hand-finished oak frame and closed panel system on-site: our teams will ensure you feel supported, and most importantly, at home.

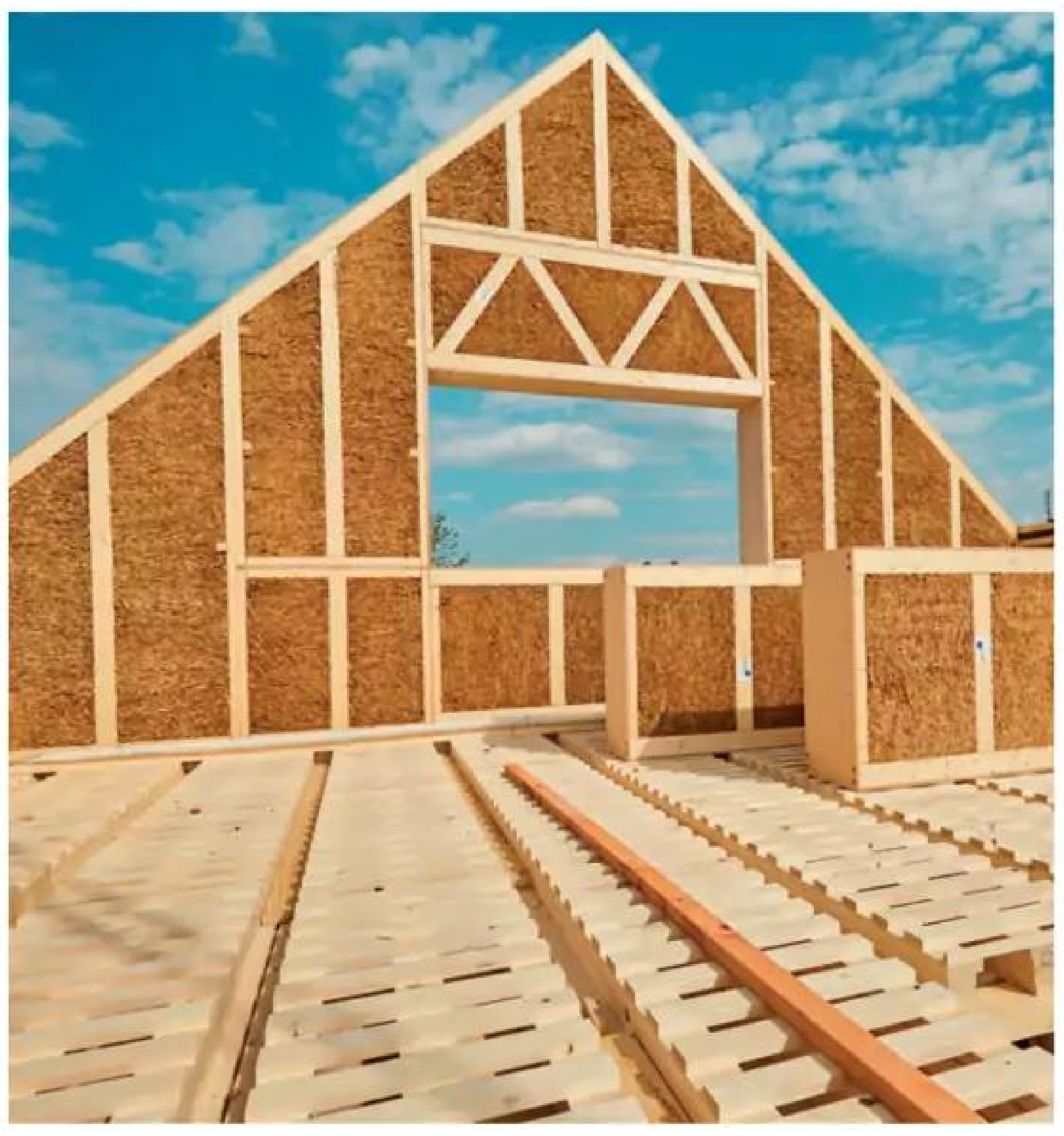
Tel: **01432 353353** Web: **www.oakwrights.co.uk**

PATH50

Established
2024

UK projects per annum
<10

Areas Served
Nationwide



Build Smarter, Live Better. Looking for a home that works for you and the planet? Our turnkey prefabricated passive houses offer maximum energy efficiency using sustainable timber-based systems like Straw Insulated Panels, CLT, and Closed Panel Timber Frame Systems. Designed to enhance your quality of life, they cut energy costs while prioritizing comfort and sustainability. Built faster, smarter, and greener—this is the future of living. Ready to make the switch? Let's build something extraordinary together.

Tel: **0208 1895760** Web: **www.path-50.co.uk**

A. Proctor Group

Established
1987

Areas Served
Nationwide

The Proctor Group is a leading provider of high-performance membrane and building envelope solutions with a strong presence and reputation for excellence.

Tel: **01250 872261**
Web: **www.proctorgroup.com**

R-WALL Insulating Concrete Formwork

Established
2018

UK projects per annum
100+

Areas Served
Nationwide

R-Wall Ltd is a UK designed non-modular Insulating Concrete Formwork (ICF) build system utilising a closed cell structural XPS. Fully BBA approved, R-Wall simplifies the build process, increases build speed and creates higher performing homes with exceptional longevity.

Tel: **01288 377 337** Web: **www.r-wall.co.uk**

PYC Construction

Established
1993

UK projects per annum
14

Areas Served
Nationwide

PYC Construction are a family run company, we take pride in every project that we deliver. We use timber because we believe it is the most sustainable way to build, and work to Passivhaus standards as it provides an energy efficient home that needs minimal heating and is kind on the environment. All projects are built to the highest quality, with panels manufactured in our workshop and expertly installed on site, improving your programme efficiency. We would love to discuss your project and help bring your dream home to reality.

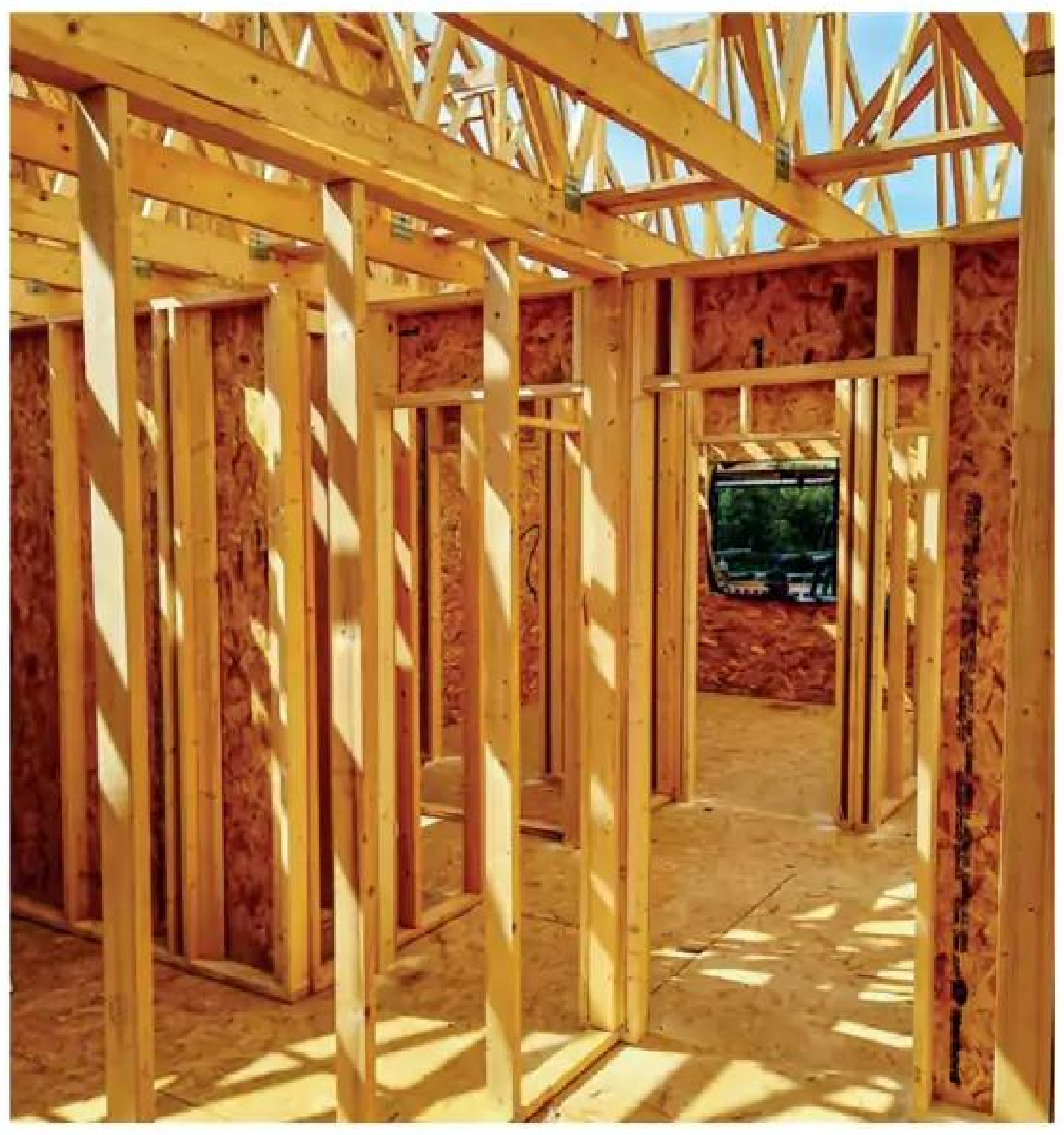
Tel: **01938 500797** Web: **www.pycconstruction.co.uk**

Seviour Timber Frames

Established
2017

UK projects per annum
12

Areas Served
Nationwide for Timber frames.
South West for Turnkey projects



We are a family-based company based in the southwest with over 30 years' experience in the timber frame and construction sector. We offer our services for Timber Frame nationally, Turnkey options available for clients in the South West!

Tel: **01225 638625**
Web: **www.seviourtimberframes.co.uk**

SIPCO

Established
2010

UK projects per annum
100

Areas Served
Nationwide

SIPCO has become one of the leading award winning SIP companies in the UK, and have completed several high profile projects, working with both major developers such as BAM, Morgan Sindall and Shepherd Construction, plus over 250 self-build projects. Our Structural Insulated Panels (SIPS) offer a solution to the strict requirements of Building Regulations, BREEAM and Passivhaus standards. We offer a complete Structural Insulated Panel (SIP) design, manufacture, supply and installation project management service, which can be tailored to suit your specific requirements.

Tel: **0151 424 5346** Web: **www.thesipcompany.com**

SIPS@Clays

Established
2003

UK projects per annum
100

Areas Served
Nationwide

Established in 2003, SIPS@Clays is the UK's leading provider of energy efficient, Structural Insulated Panels (SIPs). As the original delivery partner of the Kingspan TEK Building System, SIPS@Clays designs, fabricates and installs SIPs for self-build and commercial projects nationwide. From initial design and fabrication right through to on-site installation, we carefully guide you through the process, working hand in hand with you, your chosen architect and main contractor. With everything under one roof, including our own in-house design studio, our streamline procedures provide an end-to-end service that's hard to beat.

Tel: **01756 799498** Web: **www.clays.com**

Target Timber Systems

Established
2004

UK projects per annum
100+

Areas Served
Nationwide

TARGET TIMBER SYSTEMS

Target Timber Systems has an unrivalled reputation for producing premium quality timber frame buildings for high-end professional housebuilders. The same quality service is now being offered to self-builders to sustainably build their dream home.Target carry STA Gold Assure Accreditation, LABC Warranty, Premier Guarantee, and provide Chain of Custody documentation, along with a full set of structural calculations and other essential documents. For a comprehensive and competitive quotation for the supply and erect of your dream home, please send us your drawings via our website or by email.

Tel: **01403 782600** Web: **www.targettimber.com**

Timber Innovations

Established
2011

UK projects per annum
80

Areas Served
England & Wales

TIMBER INNOVATIONS

Timber Innovations specialise in the design, manufacture, and installation of timber engineered solutions for homes and self-build projects across the UK. From oak frame dwellings, bespoke timber features, roof trusses/panels and engineered floors, we provide bespoke and imaginative timber designs. InnovationsPLUS is our wrap around service offered to self-build clients, the resources are a combination of in-house resource and carefully selected partners to include, architectural, engineering, cost planning, energy services, mortgages, warranties, site insurance, CDM health & safety, airtightness and mechanical ventilation & heat recovery systems, tailor made to suit each client's specific needs.

Tel: **0121 314 7735** Web: **www.timberinnovations.co.uk**

Vision Development

Established
2011

UK projects per annum
10+

Areas Served
England: Berkshire, Oxfordshire, Hampshire, Surrey, Dorset, Gloucestershire, Kent & Sussex

Vision Development

Vision Development is a family-run business specialising in the manufacture and installation of high-quality prefabricated timber frame structures for new build homes and extensions. Serving homeowners, developers, and builders, we offer a personalised service tailored to each project's needs. Our timber frames are not only sustainable and energy-efficient but also allow for faster build times and greater design flexibility. With a hands-on approach and a commitment to exceptional customer care, we've built a reputation for reliability, craftsmanship, and outstanding service—reflected in our excellent customer reviews. Choose Vision Development for a trusted, personal touch in timber frame construction.

Tel: **01189 712181**
Web: **www.timber-frame-suppliers.co.uk**

WeberHaus

Established
1960

UK projects per annum
10+

Areas Served
Nationwide

WeberHaus
build a beautiful life

WeberHaus is one of Germany's leading builders of off-site manufactured houses with more than 40,000 individually designed, sustainable, energy-efficient homes built across Europe. Based in Kent, the UK team has built more than 60 houses in both rural and urban locations across the UK from Kent to Edinburgh, Wimbledon to Cambridge. Houses start with a tailor-made, bespoke timber frame constructed in a temperature-controlled factory and cleverly combine traditional craftsmanship with contemporary production methods. By continuously increasing the degree of prefabrication, on-site construction is kept to a minimum, so WeberHaus houses are erected fast and efficiently. We transform your idea into your dream home.

Tel: **01233 802026** Web: **www.weberhaus.co.uk**

Wyckham Blackwell

Established
1884

UK projects per annum
1000

Areas Served
Nationwide

Established in 1884, Wyckham Blackwell understand timber and how timber engineered products can save our clients time and money. Our service and expertise has been honed for over 140 years and we are proud of our history within the timber engineering industry. We offer a comprehensive design and manufacturing service through our team of in-house professional designers. Our manufacturing facilities are all quality controlled and CE certified. We welcome working alongside our clients on any project from inception to completion as one of the UK's largest independent timber engineering companies.

Tel: **01675 442233** Web: **www.wyckhamblackwell.co.uk**

Arridge Garage Doors

Established
1989

UK projects per annum
400

Areas Served
Nationwide

Arridge Garage Doors (Est. 1989) supply and install all leading brands of garage doors, nationwide. Large discounts off list price. Supply only or installed, to trade and retail customers. Sectional doors, up and over, roller doors, side hinged etc. Top Brands, Big discounts, Nationwide.

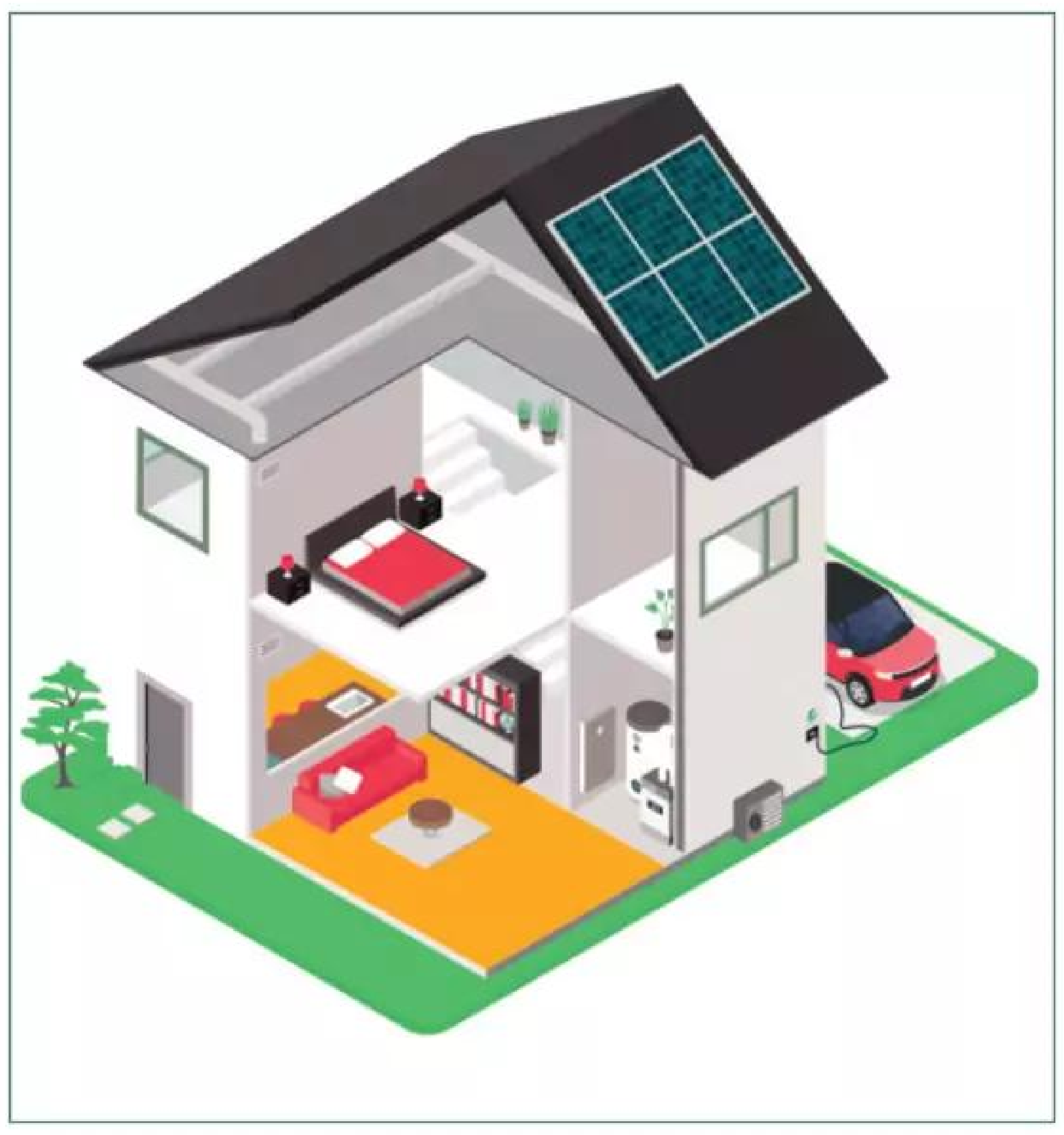
Tel: **01691 670394** Web: **www.arridgegaragedoors.co.uk**

21 Degrees

Established
1997

UK projects per annum
500+

Areas Served
Nationwide



At 21 Degrees, we lead the way in high-performance, low-energy buildings. Our products and services deliver solutions that reduce energy consumption while prioritising health, comfort and efficiency. We offer a range of high-quality products - including triple-glazed windows and doors, mechanical ventilation with heat recovery (MVHR), air source heat pumps and solar PV panels - all designed to work together to create comfortable, energy-efficient homes.

Tel: **0808 281 5021** Web: **www.21degrees.com**

Hörmann UK

Established
1979

UK projects per annum
5,000+

Areas Served
Nationwide

Hörmann UK is a leading supplier of domestic doors across the UK, offering up-and-over, roller and sectional garage doors, as well as composite, steel, and aluminium entrance doors. Installations are handled by a nationwide network of fully trained installers.

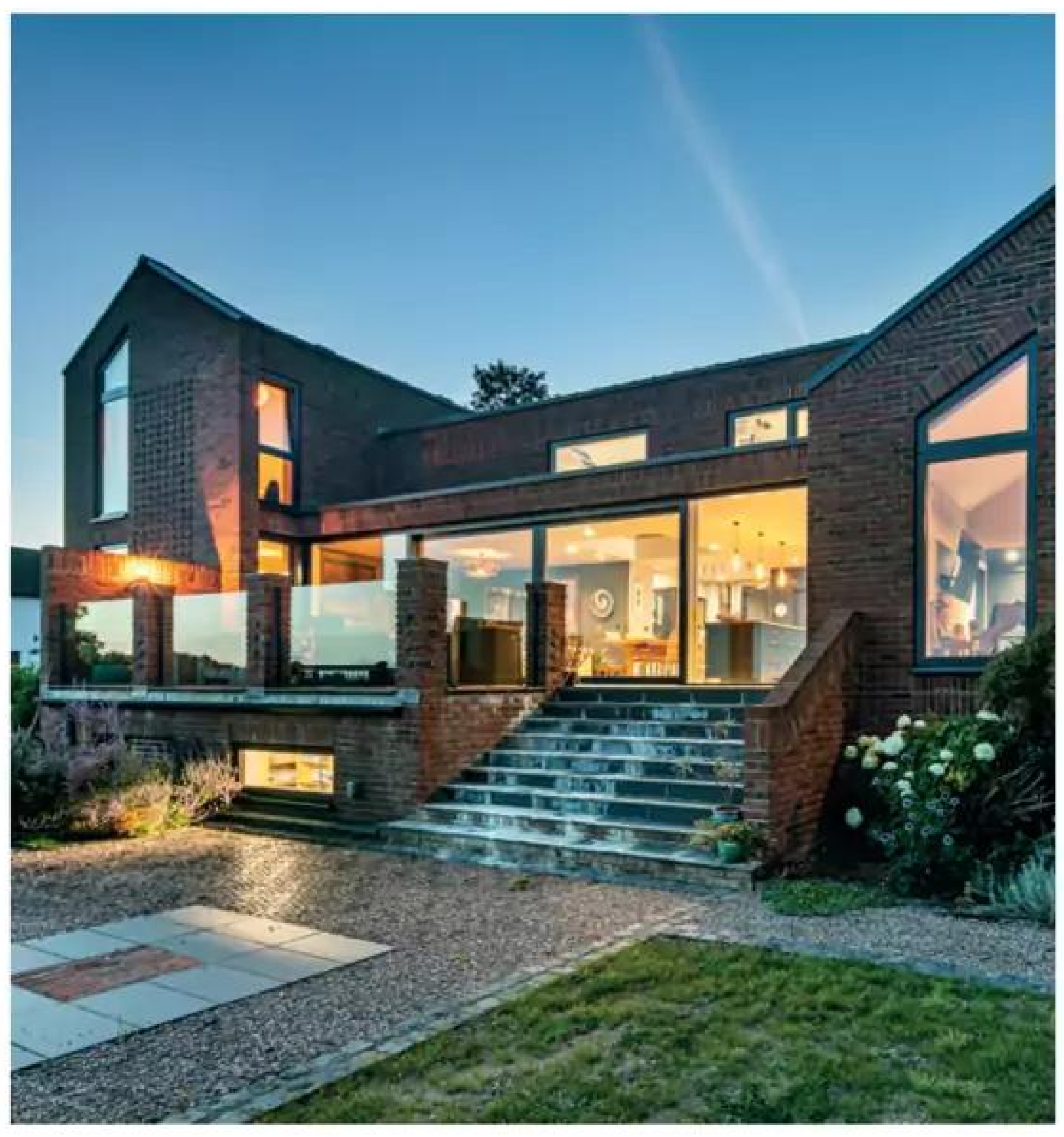
Tel: **01530 516868** Web: **www.hormann.co.uk**

ecoHaus Windows & Doors

Established 2011

UK projects per annum 100+

Areas Served Scotland, Wales & England: North West, North East, Midlands, East Anglia, South West and London



ecoHaus are award-winning suppliers and installers of bespoke windows and doors for new-build, renovation and large scale extension projects, offering an unparalleled turnkey service including supply, survey and installation. They have been the number one Internorm partner in the UK for 12 years running and have a strong reputation with esteemed architects and bespoke builders as the go-to experts for new build bespoke glazing. Their product range includes premium brands such as Internorm, Velfac, Rationel and their own brand Visiline; offering slimline profiles and an all-aluminium glazing system.

Tel: **01453 837330** Web: **www.ecohausuk.com**

Ecowin

Established
2012

UK projects per annum
100+

Areas Served
Nationwide

Ecowin
Energy efficient windows and doors

Ecowin Ltd specialises in the Supply and Installation of energy-efficient Windows, Doors, and bespoke glass structures, including Sliding and Bi-Folding Doors, Wintergardens, Glass Canopies, and Curtain Walling. We deliver tailored solutions for residential and commercial projects, with expertise in Passive House (PassivHaus) standards. We are an Authorised Partner of leading European brands — Gaulhofer (Austria), Solarlux (Germany), and Zyle Fenster (Lithuania) — offering exclusive access to high-performance Timber, Alu-Clad, Aluminium, and Sash & Case systems. At Ecowin, we combine craftsmanship, sustainability, and design to create high-performance spaces.

Tel: **01383 824458** Web: **www.ecowin.co.uk**

FAKRO GB

Established
2000

UK projects per annum
1000+

Areas Served
Nationwide

BETTER
FIT A
FAKRO®

At FAKRO, we're proud to be known for our knowledge and trusted for our technical expertise. You'll see the difference in every detail of our highly rated roof windows and loft ladders - designed for performance, durability, and style. But the FAKRO experience goes beyond our products. From your first question to final installation, our expert team is here to offer guidance, support, and solutions you can rely on. Whether you're working on a new build or a renovation, you deserve products - and people - you can trust. When it needs to fit right, perform better, and last longer, make the smarter choice. Better fit a FAKRO.

Tel: **01283 554755** Web: **www.fakro.co.uk**

IDSystems

Established
2000

UK projects per annum
1000+

Areas Served
Nationwide

IDSystems
innovative glazing

For the past 25 years IDSystems has set the standard for premium quality, custom made aluminium glazing systems, working with self-builders and renovators across the UK on thousands of projects – from urban extensions to the grandest of TV new-build homes. Our range features four Build It award-winning products, including theEDGE2.0 ultra-slim sliding doors, the exclusive Swiss designed vistaline slide & turn system and the industry-leading SF75eco bifold door; along with high performance windows, custom designed glass roofs, stylish internal glazing and bespoke glass balustrades – all manufactured in-house and fitted by our own expert installers across the length and breadth of the UK.

Build It's SELF BUILD EDUCATION HOUSE OFFICIAL PARTNER

Tel: **01603 408804** Web: **www.idsystems.co.uk**

Internorm Windows UK

Established
1931

UK projects per annum
1000+

Areas Served
Nationwide

Internorm®
Windows – Doors

Internorm is Europe's leading, award-winning window brand for self-build, retrofit, and Passivhaus projects. Using sustainable production methods, Internorm manufactures bespoke, high-performance window and door systems, large lift & slide doors, stylish entrance doors, as well as essential shading solutions and fly screens, to create an energy-efficient, secure and comfortable home. Technological innovations and a focus on quality have ensured that the Internorm triple-glazed, product range in alu-clad timber and uPVC has been at the forefront of the window industry for over 90 years. With an approved nation-wide distribution partner network, your local Internorm showroom and expert advice is never too far away.

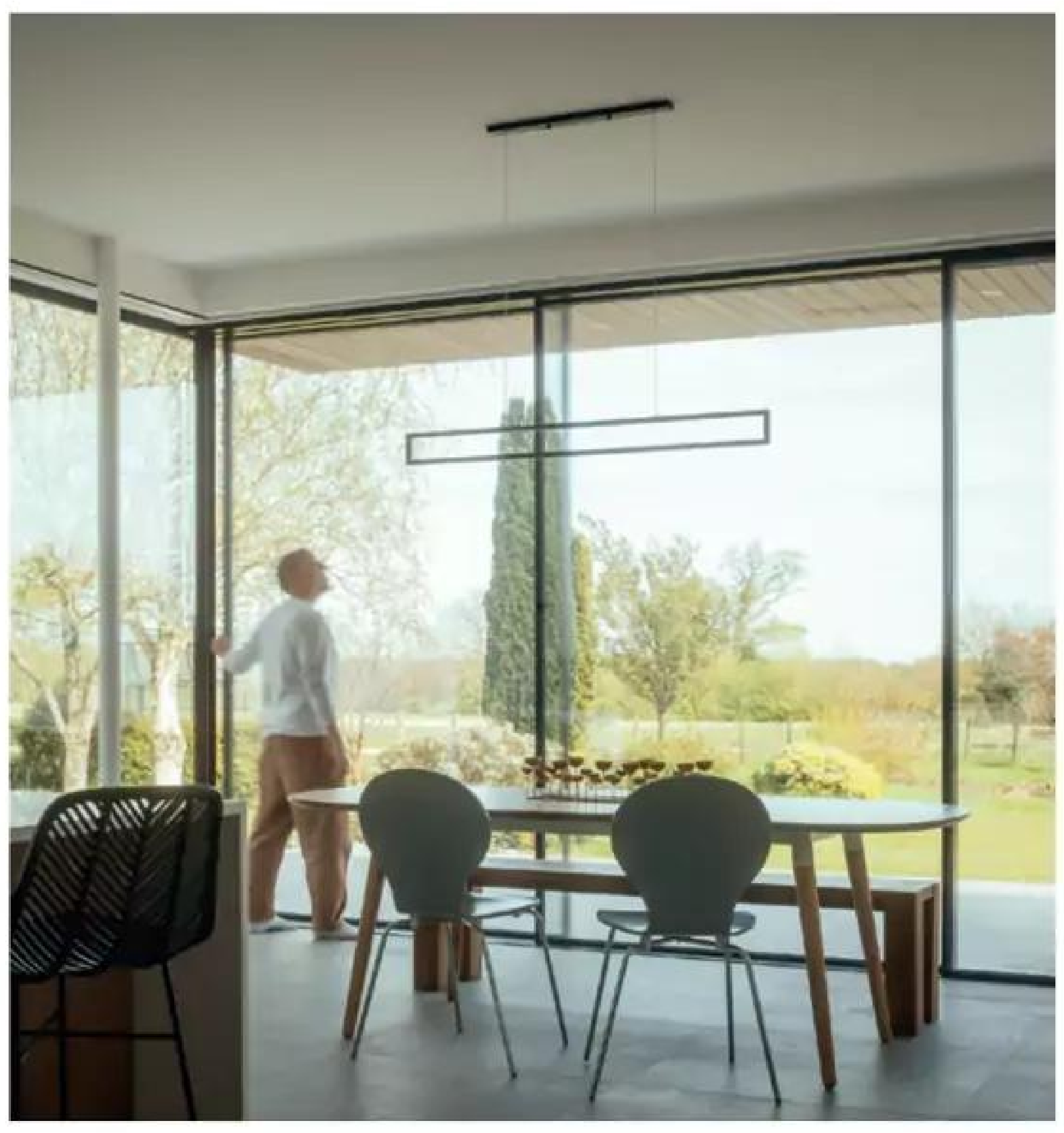
Tel: **0208 205 9991** Web: **uk.internorm.com**

Kloeber UK

Established
2006

UK projects per annum
500+

Areas Served
Nationwide



Market-leader Kloeber offers homeowners and self-builders a bespoke range of glazing solutions including bifold, sliding and French doors, the award-winning FunkyFront door, windows, rooflights and fixed glazing elements in timber, aluminium and alu-clad with an extensive range of finishes and glass types. Kloeber specialises in providing its clients with the full package, from the initial meeting and showroom visit to liaising with architects and builders involved in the project. They offer detailed site surveys to guarantee the perfect installation service, carried out by experienced, skilled fitting teams.

Tel: **01487 740044** Web: **www.kloeber.co.uk**

Lacuna UK and Ireland

Established
2015

UK projects per annum
50

Areas Served
Nationwide

Lacuna folding doors: Danish design with German engineering.The Danish Lacuna bifolds blur the boundaries between inside and out. When your bifolds are open, it's like sitting outside – but you're sheltered from the sun and drizzle. In winter, protected by the glass panels, you still have the full pleasure of those garden vistas. Lacuna supplies a durable, dimensionally stable door in Danish Design – and of course with unrivalled u-values and airtightness. Let the light in and let Lacuna help you to achieve Passivhaus performance on your project.

Tel: **03300 010 552** Web: **www.lacuna-bifold.co.uk**

Norrsken

Established
2011

UK projects per annum
250+

Areas Served
England: North West, North East, Midlands, East Anglia, South West, South East, London. Wales

For self-builders seeking both sustainability and style, Norrsken is your dedicated partner. We supply and install bespoke alu-clad timber windows and doors, engineered with Scandinavian precision. Our expert guidance ensures a smooth journey, transforming your vision into a beautiful, energy-efficient reality. Experience quality and support that empowers you to build your legacy.

Tel: **01202 632777** Web: **www.norrsken.co.uk**

Origin

Established
2002

Areas Served
Nationwide

Origin is the UK's leading manufacturer of premium aluminium doors and windows. Whether you're after a bi-folding, sliding, internal or front door, each product is made bespoke in the UK to exact specifications. The innovative design of Origin's products offer outstanding thermal performance, aesthetics, and enhanced security. They are also powder-coated in-house at its state-of-the-art facility, to ensure a flawless and durable finish. Origin's latest product launch is the new OS-29+ Sliding Door, which is the most thermally efficient aluminium sliding door on the market, offering U-Values as low as 0.78W/m²K. All its products come with a guarantee of up to 20-years, offering long-term peace of mind.

Tel: **01494 355 023** Web: **www.origin-global.com**

SUNFLEX UK

Established
2000

UK projects per annum
1000+

Areas Served
Nationwide

SUNFLEX UK is a renowned manufacturer of premium quality aluminium framed glazing solutions, including Build It award-winning bifold doors and ultra-slim sliding doors, and our systems are widely recognised for their performance, aesthetic appeal and exclusive design features. Since 2000 we have custom-designed and manufactured advanced doors and windows and supplied them to a carefully selected network of experienced distributors across the country. With every one of our systems made-to-order by our own experienced fabricators, you are guaranteed complete peace of mind, whatever the size and scale of your project.

Tel: **01603 424434** Web: **www.sunflexuk.co.uk**

The Residence Collection

Established
2010

UK projects per annum
1000+

Areas Served
Nationwide

The award winning Residence Collection are designed to authentically replicate 19th Century timber designs in modern materials. British design and manufacture, created with British Architecture in mind. The Collection consists of three window options, all of which look identical from the outside, a perfectly flush exterior. But internally different; Residence 9 has a decorative inside around the frame and transom replicating that timber alternative. Residence 7 is contemporary and has a fully flush interior too. Residence^2 has a square edge bead internally, giving that aluminium alternative – very modern and the architectural highlight of the collection.

Tel: **01452 345822** Web: **www.residencecollection.co.uk**

TP Improvements

Established
2018

UK projects per annum
1000+

Areas Served
England: South East & Surrey

TP Improvements prides itself as a trustworthy, local, glazing business offering a variety of fenestration expertise to residential and commercial clients with a showroom located in the heart of Surrey, Leatherhead. We offer a high quality, personalised service for our customers in the supply and installation of Windows, Doors, Orangeries & Garden Rooms in a range of stylish and innovative designs that are available in a variety of colours, materials, and finishes. With a highly skilled team, valuing to meet your requirements with our quality products, we are sure to be the company to choose for your glazing and home improvement needs.

TP IMPROVEMENTS
Window & Door Specialists

Tel: **01372 203040** Web: **www.tpimprovements.com**

Urban Front

Established
2005

UK projects per annum
200

Areas Served
Worldwide

Urban Front are designers and manufacturers of contemporary bespoke hardwood steel reinforced doors. We specialise in oversized and flush doors up to 1.5 x 3m – in five hardwoods, in any RAL colour and in liquid metal bronze finishes. Our range also includes the E98passive, which is certified by the Passivhaus Institute in Germany. These doorsets meet a U Value of 0.8W/m2K. We also make matching up and over, side hung or bifold automated garage doors.

Tel: **01494 778787** Web: **www.urbanfront.co.uk**

Don't risk receiving less money than expected for your project!

Only a cost based mortgage from BuildStore can offer guaranteed funds matched to your project costs.

Stage release payments are agreed as part of the mortgage application and are not dependent on interim lender valuations during the build, removing any risk of down valuations.

0345 223 4888
www.buildstore.co.uk

BUILDSTORE
MORTGAGE SERVICES

Your home may be repossessed if you do not keep up repayments on your mortgage.

There may be a fee for mortgage advice. The actual amount you pay will depend on your circumstances. The fee is up to 1% but a typical fee £395.

SELF
BUILD
ZONE

Self-Build insurance

'A' Rated Insurer

Site Insurance
Structural Warranty

Self-Build Zone's Site Insurance provides cover for anyone starting new building works, as well as covering any existing structures on site. Our Approved Inspectors can aid all survey services you may need during the build or for the warranty provision.

On completion, we can provide you with a Lender approved 10-Year Structural Warranty.

Our customers save 10%

Wickes TradePro

Call the team
0345 230 9874

Get a quote online
selfbuildzone.com

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